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# The China Medical Missionary Journal.



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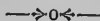
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NOTICES.

The Subscription Price for *The China Medical Missionary Journal* is Three Dollars a year. There are to be four numbers in each volume.

We will be obliged to our friends for an early transmission of the subscription money, as we have no reserve funds with which to meet our printers' bills. SUBSCRIPTIONS should be forwarded to the Rev. G. F. Fitch, Presbyterian Mission Press, Shanghai.

Articles intended for *The China Medical Missionary Journal*, should be sent to the Editor, who solicits contributions from all Medical Practitioners in China, Corea, Japan, Siam, or elsewhere.







MOTHER AND CHILD.

[See Article "*A Caesarian Section.*"]

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China Medical Missionary Journal.

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JULY, 1902.

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No. 3.

Original Communications.

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[All papers must be in the hands of the Editor two months before date of publication to insure their appearance in the following number. The editor cannot undertake to return manuscripts which are sent to him. A complimentary edition of a dozen reprints of his article will be furnished each contributor. Any number of reprints may be had at reasonable rates if a *written* order for the same accompany the paper.]

CLINICAL REPORT OF A SUCCESSFUL CÆSARIAN SECTION.

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By J. H. McCARTNEY, M.D.

I was called to see the patient in the third day of labor, and on arrival found that the pains had ceased some time. She gave the history of not having been able to walk about for some weeks. On examination we found a terribly flabby and pedunculated abdomen; in fact the abdomen was lying well on and between the thighs. The patient had a fairly good pulse, but was extremely anemic and poorly nourished.

It was impossible to introduce two fingers into the pelvis, on account of the extreme narrowness, as well as because of numerous lateral and posterior bony formations. The uterus was extremely antiflexed, and the condition of the os could not be made out by digital examination, as we were unable to reach it with the finger. As soon as the exact condition was ascertained, realizing the utter hopelessness of attempting perforation, we advised a cæsarian section, as offering the only hope for the mother with a possible chance of saving the child. The relatives had arrived at the conclusion that she would surely die (which is quite unusual for a Chinese family with their varied opinions), and as I offered them some hope of a possible favorable result, they very willingly consented to bring her into the hospital at once; then at 1 p.m. we returned and made arrangements for the reception of the patient. As soon as she reached the hospital, she was given a bath, donned

hospital clothing, and was removed within half an hour to the operating room. Dr. Hall gave the anesthetic (which was *chloroform*). She took it nicely, and was soon under. Dr. Baiss, of the British gunboat, was my first assistant, and Dr. H. L. Canright, who was passing through Chungking and who was present, kindly consented to look after the child. The first incision was made in the median line, extending from about one inch below the navel to within about the same distance of the pubic bone, but finding this too small to permit the protrusion of the uterus, the incision was extended above the navel and the uterus brought up and out. With one incision the uterus was opened, and the child with its attachments removed without any difficulty. At this point Dr. Baiss firmly constricted the uterus with his hands and prevented any great loss of blood (in fact from first to last the patient lost much less blood than she would have done from an ordinary labor). When the child was removed it gave no signs of life, and it was wrapped in a towel and put in one corner of the room on the floor. Shortly after it gave signs of returning life, and Dr. Canright turned his attention to its restoration. As soon as the child had been removed we decided that the mother would stand a better chance of not suffering from post operative infection if we removed the uterus and its appendages. We also wished to guard against a possible future pregnancy. We accordingly did a complete hystorectomy. Heavy silk was used for ligatures, and with a double row of catgut we stitched the peritoneal surface over the amputated stump. When this stage of the operation was finished the patient showed signs of collapse and a hypodermic of strychnine was given, which acted promptly, and when the operation was completed a few minutes later, the patient was in good condition. The abdomen was stitched with deep catgut sutures and the external wound was brought together with silkworm-gut and catgut alternately. *Iodoform* dressing and binder was applied and the woman put to bed with hot water bottles. She had a rise of temperature to one hundred and two points the next day, but it soon reached normal. The only diet given for two days was water and rice-water, and then for the next few days a thin boiled rice. She was permitted to get out of bed in twenty days and left the hospital on the thirtieth day. Against my orders she partly nursed the baby from the beginning, and is still doing so; her breasts being unusually large for her size. The accompanying photograph was taken six weeks after the operation. The patient measured about four feet two inches high and weighed about eighty-five pounds. She is twenty-three years of age, and was married when she was eighteen, this being her first pregnancy.

*American Methodist Mission, Chungking.*

## OUR OUT-PATIENT WORK.\*

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By GEORGE A. HUNTLEY, M.D.

Among the many requirements for success in our out-patient work I wish to emphasize the following:—

1. *Cheerfulness*.—This is a remedy which we shall do well to add to our system of therapeutics, for saith the Scriptures, “A merry heart is a good medicine” or “causeth good healing” as the margin reads, “but a broken spirit drieth up the bones.” Since my name was down on the schedule to open this debate I have noted thoughts as they have occurred during the whole year. The item on cheerfulness was written when my out-patients were particularly stupid, when I was very pushed for time, and when the weather was extremely sultry.

One patient—a woman—had aural polypi, and the sight of an instrument used to ascertain if the pedicles of the same were extensive, scared her unduly, and she retreated when I came within half a yard of the auricle.

A man with an indurated ulcer of the palm of the hand behaved similarly as did some others. I confess I was not overcheerful about it, and the failure to be pleasant brought many after regrets. These and similar incidents also show the need of

2. *Patience*.—How often this is sorely tried and how often alas we fail to exercise it (not to speak of doubting our possession of this virtue), is known to most medical missionaries. It will often do an old woman as much good to relate to you the history of her disease with volubility as it will to take the medicine which you will afterwards dispense, and often the *kaoming* (reputation) of the physician will be in direct proportion to the amount of patience he exercises. Calls for the exercise of this virtue will come along many channels. The removal of important dressings, the daubing of an ulcer with native medicine in addition to the remedy you have provided, or the careful application to the same of some *Epsom salts* which was intended for internal administration, or the consumption in two or less days of the medicine which was intended for six. These and many like experiences will give us ample opportunity to “let patience have her perfect work.”

3. *Tact*.—This is especially necessary in dealing with women and children. A pinch of sugar, the opening of a watch, and above all a kindly smile will do much to gain the confidence of the little ones. Ask women about their families, the ages of their children, the occupation of their husbands and so

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\*Paper read at the Hankow Branch of the China Medical Missionary Association.

on, before questioning them about symptoms they dread to describe. By proper tact diffidence will be removed and reticence overcome, while a correct history and diagnosis will result where otherwise it would be impossible. This applies more especially of course to men doing medical work among women.

4. *Punctuality* is an important factor in a successful out-patient practice. Remember that "time is money" to the Chinaman as well as to the foreigner, and that poor patients, who barely earn enough in a full day's work to support their families, have to suspend their business perhaps for several hours while attending our clinics. Have a fixed time therefore and always be on time. Cultivate punctuality among the natives by seeing them in the order they arrive and making an extra charge to those who come late. It is my practice to charge 200 cash for those who come after twelve o'clock or let them wait over until next day; cases of emergency of course always excepted.

5. *Thoroughness*.—The clamoring after large figures for annual reports is not good, and has led many a missionary physician into a slipshod, rule-of-thumb method of dealing with his patients. In the rush patients suffering from an ulcerated pharynx are often treated for chronic bronchitis. The president in his paper on pulmonary phthisis told us of a patient who had long been ineffectually treated with *cod liver oil* and *syrup iodide of iron*, but whose hemoptysis (?) quickly got well with local applications to the pharynx, and I too have had many patients who, from the symptoms described, might be suffering from a well-established hemoptysis, but on careful examination the whole trouble has been found to be in the throat.

For thorough work some conveniences are necessary, among which the following may be mentioned:—

a. A screen or rolling doors, behind which patients may be examined privately. This is especially necessary when men and women are seen together.

b. A table for abdominal examinations.

c. Some reagents for examination of urine *at the time*.

d. Some clear slides for specimens of sputum and blood which will be subsequently examined.

e. A dark room in proximity to the consulting room for examination of the eye, ear, nose, and throat. Don't leave all careful work for the hospital, but do it in the out-patient department as far as possible.

In conclusion, a few remarks and suggestions gathered from experience in my own work:—

1. To a class of nondescript patients who complain of nothing in particular and everything in general, I give a placebo of a small quantity of the *compound tincture of gentian* in water.

2. I always charge for venereal diseases ; two hundred cash per week or a compound fee of one thousand cash.

3. Never give a prescription paper to the patient, but give him a ticket with a number corresponding to the prescription paper, which is preserved for future reference. In this way the paper is kept from being spoiled or lost.

4. It is a good plan to encourage the patient to remember the number of his ticket for future reference ; it being a Chinese superstition to destroy the ticket when the disease is well, as a retention of it would cause a return of the trouble.

5. In ague cases when prescribing *quinine* I always require the patient to take a dose of *magnesium sulphate* or other cathartic at the dispensary window. This helps to insure the *quinine* being taken by the person it was intended for, and keeps many from applying for this well known remedy, whose cupidity would lead them to sell it for gain.

6. Some patients who need to be seen every day, such as ulcers and some ophthalmic cases, can be made to attend regularly by being required to deposit say five hundred or a thousand cash ; the sum to be returned in full when the disease is cured.

7. For registration, forty cash for men and twenty cash for women and children. Free tickets to paupers. To each patient we give a portion of Scripture and a gospel tract, and as far as possible a word of exhortation to read the contents of the book and to believe on the Lord Jesus Christ. A moment spent with each patient urging him or her to repent and be saved, will affect in a wonderful measure the spiritual results of our work, and I fervently utter the prayer that that man of God, the late Dr. Douthwaite, once offered in my presence, "God keep me from becoming a mere medical hack."

*American Baptist Missionary Union, Han-yang.*

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DISCUSSION ON OUT-PATIENT WORK.

(Following Dr. HUNTLEY's Paper.)

Dr. GILLISON, speaking of the function the out-patient work was intended to discharge, said that the dispensary is always the initial stage to the hospital, and that one of the most important functions of the dispensary was to feed the hospital.

As to time of seeing patients he thought that the best time was when most would come, though when there was a large in-patient practise it was best to see out-patients in the afternoons, leaving the forenoons free for hospital work.

As to charge, he thought in the beginning of the work it was best to have no charge, requiring a small fee when patients got too many, and thus regulate the number of attendances by the charge, though some charity cases would always be seen.

He thought that until the work was well established it was best to see patients every day. Suggested that all the hospitals in this centre should have a uniform charge.

At this stage of the meeting a committee was appointed to consider a union scheme of charges.

Dr. HODGE spoke of the spiritual and medical aspects of the work. Recommended that the missionary physician himself give a short address to the patients before the clinic commences, on a definite topic, followed by other addresses, but thought that perhaps the most effective work could be done by two or more colporteurs selling books and talking to small groups of patients.

On the medical side of the work Dr. Hodge gave the following counsel to the young physician during his early years of practice in the out-patient department:—

Be methodical. Inquire into the condition of all the important organs in a general way. Be specially careful of cases of dyspepsia. Remember that dyspepsia is only usually a symptom and very rarely a primary disease. Illustrated by a man who applied for relief for gastric trouble and for whom he was about to write a prescription for the usual dyspepsia mixture, but on examining the heart found the patient to be suffering from mitral regurgitation, which explained all his dyspeptic symptoms.

Limit your number, so as not to be hurried in your work.

Never lose an opportunity to examine the rectum. After digital examination use the speculum and ascertain if your diagnosis is correct.

Fight shy of minor surgical operations in the out-patient department. We may be clean in our own surroundings, but the patient will often return to surroundings of indescribable filth, and great evil may result. Related some sad sequelæ to minor operations in out-patient work, especially erysipelas.

It is best for the young doctor to see all the cases himself, but in the event of an older physician, having a native assistant upon whom he can rely, the doctor himself might see selected cases only, or perhaps all new cases, leaving the others to the native assistant. Nor does the older physician need to go into cases so minutely as he would recommend the younger man to do.

The Wesleyan Mission see out-patients four times for fifty cashon the men's side, while the women are charged ten cash for each visit.



## TRUE ECONOMY.

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By EDMUND S. DUKES, M.B., M.R.C.S.

A few further remarks on this subject may have interest, for Dr. Jefferys' dealt chiefly with the medical side of the question in the April issue. Besides, it may be doubted if Dr. Jefferys' paper, however true its statements were, quite touched the weak spot in the use of our hospital finances.

So far as I have seen, there has not been a tendency to waste money by a too niggardly use of it. That most hospitals are short of money I suppose is true, and will remain so till we waken to the fact that there is no good reason why we should spend any money, much less mission funds, in doctoring those Chinese who are well able to pay for our services.

But that when there is money to spend (and it usually comes with a flood tide, however low the ebb may be), then is there not rather a need to remind ourselves of our responsibility, lest we spend it in needless medical luxuries?

One may lean to the strictest economy in the use of material, and even go so far as to use Dr. Jefferys' pet aversion—a "slim dressing", that is, to use little of the expensive prepared wools, etc., and only next the skin. But cannot one use, on the outside, materials that are equally as serviceable and very much less costly? For instance, our experience at home in hospital work may have led us as students to a somewhat superstitious regard for wool as an absorbent, or at furthest to affect some elegant preparation of wood pulp. Some who have discovered that wool can be bought cheaply in China (and they are not the whole of our number) often "wish that it were only absorbent," or they boil it in lime water in attempt to make it so. How many have risen to the fact that Chinese paper is *par excellence* the absorbent to use? To impregnate it with *mercury* or other antiseptic, is a fairly simple matter. Saw dust, too, is recognised at home as an excellent thing to use, and can be very readily rendered antiseptic, and even coloured if we are of æsthetic turn of mind! To apply it, Chinese paper (of a somewhat better quality than for mere absorption), prepared as above, can make a neat and most adaptable pad.

Dr. Jefferys' touched on another means of earning money by saving it, in the mention of a native-made artificial limb. The Chinese when once they grasp your idea and know what you want, can make anything almost, if they have the materials. Wood goes a long way; iron is good, and casting can be done; steel is imported and can be made into excellent forceps; pewter is well known, and this material is recommended by many for pessaries. Tin and brass are understood as well in China as anywhere, and the natives use drills and files.

In fact it may be granted that all splint and most simple apparatus of iron or brass can be made here quite satisfactorily and very cheaply.

The native who obtained nine dollars for the artificial limb mentioned above, was probably well satisfied! Ordinary wooden pegs can be made for well under a dollar.

Probably a considerable saving can be made in these ways, not to suggest that foreign-made bottles are not exactly essential to the cure of a case. Bandages, too, are a serious item with much surgical work to do, and they are seldom if ever needful. Chinese thread is an excellent means of retaining any dressing in position, interlacing the circular turns afterwards, if needful, with a loose piece of thread.

Foreign-made beds perhaps have some advantages, but the ordinary run of patients are fairly clean, and a good joint with plenty of best varnish will be less costly and as serviceable; while for paying patients (to whom we must all look before long for most of our money) can be provided an excellent string or rattan-bottomed bed, made of a convenient width, for under four dollars.

Above all other expenses, perhaps, comes the question of hospital buildings. No one doubts that if a man has the time, energy, perseverance, tact, knowledge, etc., then he can supervise a native and get a European building. But the chances are that he will make some serious mistakes and live to repent having, as cook, to eat his first pudding.

A native house is not always a pig sty. (This is a fact that needs impression on the ordinary foreigner.) With glass to replace paper, making extensive windows with ample light and air, and especially if a house be built to order with an upper story and gallery, a Chinese better class house is a most habitable building. If we add to this a system of steam pipes as directed in a recent number of the JOURNAL, we have a place fit to care for any patient. The native prejudice against living in a "loft" would probably be as great in a foreign-built as in a well fitted up native house.

Perhaps the most troublesome "necessity" for most of its votaries here in China is asepsis. And it is liable to become one of the most expensive, too, when there is money at hand to buy complicated sterilizers, glass tables, germ proof cases, etc. There may be some among us bold enough to think that economy in asepsis is one of the allowable retrenchments, considering the time and personal thought and attention needful.

Others, may be, are inclined to the dreadful heresy that antiseptics is after all best. A patient who has been half frozen on one of the patent glass tables where he lay stripped for a trifling trouble, will tell you that asepsis has certain disadvantages, and operations under its régime too great an ordeal.

For those who believe in a "true economy" of asepsis I detail the following case that it may strengthen their faith (in practical antisepsis with a dash of asepsis thrown in when possible and convenient):—

It was a beggar. Beggars are hardly aseptic; even the larger specie of animalcule not always being absent. But they do at least spend a fair portion of their leisure chasing these larger breeds, and the elements of needful cleanliness are not quite absent.

Now this beggar was different; he could not give chase, nor could he attend to the first rules of cleanliness. For he lay all day long helpless in a basket of what was once straw. And this for six weeks, day and night.

Moreover, he had attached to both knees a mass of putrid flesh and bone, the home of those whose only proper home is the grave. The reason he came under medical care was that his fellow-beggars feared he would kill them all with the stench if they further neglected to carry him to the hospital.

Now it must be admitted that this was not a favourable case for the exhibition of any form of treatment, more especially when it is remembered that he came to a man single-handed, in a native house not adapted in any way, and without accommodation to receive such a man as an in-patient, much less to give him a bath.

The method adopted was as follows: the evangelist gave *chloroform* (not being of a homicidal tendency, the missionary always uses a Junkin's inhaler). It was his first case, and he, under direction from time to time, kept the patient under the whole while, with no vomiting or other troublesome symptoms.

The skin from the knee was denuded of most of the accretions of ages by means of soap and a special basin for the purpose which was then discarded. A further polish-up was given with an ordinary liniment (of soap, turps, and ammonia). Then the thighs were invested in a covering of newspaper tied on with thread, and of course the gangrenous members were wrapped in the same way. The house-boy of the establishment acted as assistant, and though by no means bright on ordinary occasions, he rose to the the present one, and as a change even made an effort to understand his master's broken Chinese.

*Mercury* lotion (1:1,000) was used throughout; the instruments being in *lysol* (two per cent.).

Incisions as low as possible, lateral flaps, with retraction of skin for section of muscles and bone. No vessels were tied; some blood was lost on one side by the securing of only one of two large vessels. (The writer confesses to some haziness as to names.) Skin sutured at two points with interrupted, then the whole by a continuous suture. Drainage-tube behind.

Protective was applied along the incision, followed by a *very* "slim" dressing of blue wool, which in its turn was covered with alem-broth Chinese paper wetted in lotion to make it lay on to the skin and adhere round the edges. Then Chinese wool tied on with thread, and finally newspaper.

Result: Patient was carried to his shelter by his fellow-lodgers, and did not find leisure to come up for a fortnight, and then had to be sent for. He "did not know the legs had to be looked at again, and he had to go begging for living."

On taking off the newspaper the wool was seen to be fairly *alive* with lice; but none had found their way through the Chinese paper dressing, nor beneath it; and it formed a firm casing to the stump.

The wounds had healed by primary union, except at one small spot; here there was no discharge or inflammation. The man was induced to come up at intervals of a week or so by doles of cash; and the small unhealed patch did not close up quite readily for lice got into the dressing. But a bad sore developed from the utter lack of cleanliness. However, he seems in very fair health and a good advertisement for practical antisepsis.

Might I add a few words on the same subject of true economy in the matter of spending money in the support of our evangelist?

The same rule holds, I think, though the principle may be on a different footing—to give enough and not to give more than enough. This seems trite and obvious. But we may well keep it in mind. For how many missions apportion the salary to the needs of the evangelist? We all know the danger there is of getting a man to work for money; the other extreme (which may well be considered the safest) soon demonstrates itself when past the limit of the needs of the case. If a man has more money than other men have a use for in his station of life, one may well begin to suspect the opium habit. If a man lives in clover by his work in the gospel, others will be eager to take up this new faith that is so lucrative to its devotees.

So do not let us be persuaded that it is true economy to overpay our evangelists.

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## ENLARGEMENT OF THE SPLEEN; ITS CAUSES AND TREATMENT.\*

By MARTHA H. POLK, M.D.

The spleen is a ductless gland, formerly classed with the thyroid, thymus, and suprarenal glands and considered to have charge of the metabolic processes of the body in some not well understood way. It remains till now one of the battle grounds of the physiologists.

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\* Read before the Soochow Medical Association, January, 1902.

Gross anatomy shows an oblong, flattened, soft, brittle, highly vascular body of bluish red color, and situated in the left hypochondriac region, surrounding the cardiac end of the stomach and having the tail end of the pancreas resting in its hilus. The peritoneum surrounds the spleen and forms a suspensory ligament which holds it in place. The smooth convex surface looks upward and outward while the concave surface looks downward and forward. In the adult, in health, it is about five inches in length, three or four inches in breadth, and an inch or an inch and a half in thickness. It weighs about seven ounces. From infancy to the prime of life it bears a regular proportion to the body weight, but in old age it decreases in size. Normally it is larger during and just after digestive processes and is larger in well-fed animals than in poorly kept animals. The proper substance of the spleen is a dark friable mass consisting of numerous cells and their intercellular substance, while here and there are found bodies like lymph bodies, called malpighian corpuscles. These bodies are on, and intimately attached to, the small arteries and the arterioles of the spleen. They are whiter than the other substance and are full of white blood cells. In these intercellular spaces are found blood, in which the white blood corpuscles are more abundant than in other parts of the body. Here also are found highly stained blood cells in all stages of integration and disintegration. Some of them contain a proliferating nucleus, hence some physiologists think that the spleen is not only the burial place but the birth place of the blood cells. The capillaries of the arteries end in the tissue interstices of the spleen pulp, and the capillaries of the veins begin in the same place, so that the blood passing through the spleen comes into intimate relation with the spleen substance and there undergoes some important change. The blood supply comes from the aorta and the outgoing blood passes through the portal vein to the liver. This last fact would connect it with the great catabolic processes of the body. An interesting fact, when we remember that the white blood cells are increased, is that the spleen has few lymph vessels and so the blood vessels act as afferent and efferent lymph vessels. The blood, which in all other parts of the body is neutral or alkaline, in the spleen is acid, strongly so, and a careful analysis shows it to be charged with all the products that are to be found in active anabolic and catabolic changes of the body. If the blood in the splenic artery be examined, it will be found that there is one white blood cell to every 2,000 red ones, whereas if the blood just leaving the spleen be examined, it will be found to have one white cell to every seventy red blood cells. An immense increase! The red cells are smaller, not so flat, redder, and do not form rouleaux. It is said that the spleen can be removed without any change in the blood at all, but in some animals the lymph glands enlarge.

So its structure teaches that it is a form of lymph gland with blood instead of lymph; its chemical constituents show that it has active life processes going on in it. The change in blood indicates this process to be the creating white blood cells and burying of red ones. The enlarging of the organ after meals show it to be in correlation with the organs of nutrition, and the enlarging of the lymph glands after its extirpation, shows its near relationship to the great lymph system. Many of the above facts that I have gathered from reading are disputed by Foster, but he confesses that he has no opinions to offer in their place, hence I have stated them, though gotten from lesser lights.

Since so little positive information can be obtained concerning the normal activities of the organ, of course much less can be known of its abnormal and pathological processes.

Concerning the enlargement of the spleen—its cause and its remedy—it is a little difficult to intelligibly divide and arrange the subject for consideration. Perhaps the best way is to consider acute and chronic enlargements, their causes and cure.

*Acute* may be due to splenitis, to blood changes in acute diseases as in pyæmi, puerperal, typhoid, relapsing, and malarial fevers, in acute tuberculosis, and in echinococcus. Or, according to Anders, it may be due to dislocation, which not only causes enlargement but gives the impression of being much larger than it really is. Anders also gives hyperæmia as a cause of enlargement.

*Splenitis*.—Most diseases of the spleen are secondary to other diseases, so splenitis is rarely primary, except when from injury. It is sometimes the result of hyperæmia, which is said to be often caused by amenorrhea. The symptoms of acute enlargement are usually so shrouded in the symptoms of the primary disease that little attention is given to them, and at the expiration of the diseases the enlargement has either disappeared with them, or has become merged into a chronic form.

*Hyperemia* may be due to obstructed circulation from any cause, and gives no symptoms, except a sense of fullness in the left hypochondriac region. If the obstruction is mechanical, the treatment is to remove the offending body. If it is due to sluggish circulation, a saline purge is often all that is needed.

*Dislocation* may be due to any weakness of the suspensory ligament, to any added weight in the organ itself, or to any pressure above, or dragging weight below, or to any violent sudden muscular movement. The symptoms are vague and the differential diagnosis between floating spleen and liver and kidney, and the simple enlargement of the spleen, is often very difficult. The prognosis is good for life, but not good for cure. The treatment consists in some mechanical support, such as bandages, or in sur-

gical procedure, such as attaching the organ to the abdominal wall or removing it entirely. Fairly good results have been gotten from removal ; one in twenty-four cases recovering.

*Metastatic Inflammation.*—Next to the kidneys, the spleen is a favorite seat of metastatic inflammation and embolic enfarcction, as would be known from the very nature of the organ ; it being almost entirely free from any anastomoses of the blood vessels. Any embolus that reaches the smaller arterioles of the spleen, may cause a pyramidal infarct with base toward the periphery. This is almost certain to set up an inflammation which gradually reaches the capsule over the base of the infarct, and may cause adhesions and hyper-plastic changes. If it becomes infected with pus micro-organisms an abscess is the result, which may find an external opening, or may find an opening into the peritoneal cavity and produce collapse and death. These abscesses may multiply into numerous ones, and these may merge into each other until the spleen be partially destroyed. Sometimes the inflammation takes on the form of intense vascular enlargement as in typhoid fever and during attacks of epilepsy, when the spleen has been known to burst, or at least break, so that there was blood extravasation.

*Echinococcus.*—The spleen is very much enlarged in this disease, so much so that it is often mistaken for the more chronic forms of enlargement due to malaria or to leucemia. As the echinococcus has a predilection for the liver, that organ is usually enlarged and fluctuating. Aspiration and the microscope will usually show the characteristic hooklets and prove the case. There are no special symptoms, except hydatid thrill, which can often be felt over any affected place. The treatment is the same as for this disease elsewhere, which consists in evacuation and giving supportive treatment. The prognosis is very poor.

#### CHRONIC ENLARGEMENTS.

Chronic enlargements are due to chronic hyperæmia, and splenitis from obstruction to circulation, to the continuation of any acute enlargement, to amyloid, fibrinous or cirrhotic degenerations, to rickets, syphilis, malaria, malignant growths, Hodgkin's disease, and leucocythemia.

*Chronic hyperemia* is usually due to some obstruction to the portal circulation, either from tumors or from cardiac, hepatic, or pulmonary diseases. The symptoms of the enlargement are vague ; the principal one being a sense of weight and fulness in the region of the spleen. When palpated the edges may be felt, and on percussion the area of dulness will be found to be increased. The enlargement of the spleen has seldom been noticed in our clinics until the ascites that almost invariably accompanies it, has grown so marked that the outlines of the spleen are difficult to find. Of course the treatment is toward the causative forces. If the congestion has continued so

long that hyperplastic changes have resulted, there is no hope of doing much toward reducing the size of the organ, even after the subsidence of the original disease.

**Degenerations.**—Cirrhosis, unlike the same change in the liver, causes the spleen to enlarge. It is a proliferation of the connective tissue at the expense of the gland tissue. Osler considers cirrhosis as "in many respects the anticipation of old age." The factors causing this degeneration seem to be the same in all organs, viz., overeating and drinking, syphilis, congestion, malaria, tuberculosis, and rickets. All treatment must bear on these causative factors. Amyloid and fibrinous are degenerative processes occurring in cachectic conditions, whether from syphilis, or tuberculosis, or malaria, or from malignant growths, or from blood changes, or from some prolonged suppurative changes. All treatment is hopeless after the degenerative processes are well established. *Malignant growths* of the spleen are rare and always secondary to the disease elsewhere.

*Rickets* comes on insidiously about the period of dentition, usually beginning with digestive disorders; the child appearing feeble, disinclined to activities, is feverish and fretful. Sir William Jenner gives three prominent symptoms of the beginning of rickets: First, a soreness of muscles that makes the child not comfortable when being handled; second, a tendency to throw off the bed covers at night; and third, profuse sweating about the head. The muscles soon begin to grow flabby and the bone lesions appear, which are so well known. The enlargement of the spleen is not perceptible till later, and as the bone lesions are more or less permanent so is this lesion. *Phosphorus, cod liver oil, iron iodide*, and good hygiene, are the remedies that ever present themselves in connection with rickets. Syphilis, malaria, and tuberculosis, the three great destroyers of the health and happiness of man, are all causative factors in the enlargement of the spleen, but since they are justly claiming the attention of every student as the most important of studies, they need not be dwelt on here.

**Hodgkin's Disease.**—The spleen is enlarged in this disease also, but not so much so as in some others. This disease is diagnosed by the enlarged glands of neck, axilla, and groin by the anemia, œdema of the feet, the shooting pains in the nerves, the heart palpitation, and sometimes dyspnea.

*Arsenic* seems to be the remedy that has been proved to be best in this trouble. If it does not agree with the patient, *phosphorus* can be tried, together with every effort to build up the patient's strength.

The greatest enlargement is found in leucocythemia or leukemia. This is defined by Osler, Anders, and Stevens as a disease in which there is a great increase in leucocytes, accompanied by increase in the size of the spleen, lymphatics, and bone marrow. Stevens says the increase is a hyperplasia. The etiology is unknown, though the evidences point strongly to a microbic



origin. As in most of the organic changes of the body, syphilis, tuberculosis, and malaria are considered to have some part in the development of the disease. Men of middle age are more apt to have it, but none are exempt. It is insidious in its onset and may for many months present only a simple anemia. There is languor, lost appetite, dizzy head, noise in the ears, faint-

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origin. As in most of the organic changes of the body, syphilis, tuberculosis, and malaria are considered to have some part in the development of the disease. Men of middle age are more apt to have it, but none are exempt. It is insidious in its onset and may for many months present only a simple anemia. There is languor, lost appetite, dizzy head, noise in the ears, faintness, breathlessness, and palpitation. Sometimes, however, the very first symptom may be fulness and heaviness in the left hypochondrium. Sometimes it is nausea, vomiting, diarrhea, and epistaxis. As the disease progresses the anemia increases, the pulse rate grows fast and it is soft and compressible. The dyspnea is increased by the accumulation of fluid in the cavities. There may be hemorrhage from nose or gums, or ulcerative enteritis. The immediate cause of death may be a rupture of the blood vessels of the brain. The spleen is very much enlarged ; sometimes taking up the whole left side of the abdominal cavity and extending to the iliac crest and to the umbilicus. The capsule is usually thickened, and there are adhesions uniting it to the diaphragm, the stomach, and the abdominal wall. The blood vessels of the hilus are very much enlarged and the weight of the spleen ranges from two to eighteen pounds. The whole organ is hyperplastic, cuts with resistance and is of a reddish brown color. The cause of this great enlargement is disputed. Kottwitz held it to be a reactive condition from overexcitation of the "hemato-poietic organs," leading to hypertrophy. There are many reasons given by other men as to the cause, but this appeals to me as the most consistent with other physiological and pathological changes in the body. Of course the overexcitation is not accounted for, but the theory of the microbic origin of the leukemia may account for this also. The most striking symptom of leukemia is the increase of the proportion of the white blood cells in the blood. Whether this is accredited to the increase of the white cells or the decrease of the red cells, if the spleen is the birth place of the white cells and the burial place of the red cells, the fact may in some sense account for the hypertrophied condition of the spleen, since activities up to a certain point produce hypertrophies. The unusual activity in cell production may cause it in this case. All life processes are more active in their formative stage, so that the new life processes result in proliferation, hence the hyperplasia.

Prognosis is bad. Recovery has occasionally occurred. For the disease itself *arsenic* is perhaps the best remedy, and should be pushed to the limit of tolerance. Everything that tends in a hygienic way to improve the health should be done, but the disease has curious intermissions, and so it is difficult to speak with any degree of assurance of any drug.

Splenic enlargement must be differentiated from tumors of the mesentery and the omentum, from floating spleen or liver or kidney, and from fecal accumulation.

## SUMMARY.

Acute enlargements are amenable to treatment of the primary disease, or else merge into chronic, except when caused by congestion, which may be relieved mechanically or by purgatives, or when caused by dislocation, which requires support or operative procedures, or when caused by echinococcus, in which case aspiration and supportive measures are required.

In *chronic* enlargement if the spleen has become very much enlarged and hyperplastic changes have taken place, the finding of a cure is a thing for the future. The symptoms are rarely marked in any case, consisting almost entirely in a sense of weight and fulness in the region of the spleen. Unless there is some inflammation that has reached the capsule, there is no pain. The diagnosis is not often difficult, but sometimes the spleen has the appearance of being large when it is only pushed down or else pulled lower. The ascites that often accompanies it, is due to the original disease. If the enlargement is from degeneration or from a malignant growth, the cure is hopeless. If it is from tuberculosis, there is as little hope. If it is from rickets, *cod liver oil*, *phosphorus*, *iron iodide*, and good hygiene improve the rickets and incidentally the spleen. If from Hodgkin's disease, use *arsenic* up to tolerance, and if it is not tolerated, try *phosphorus*. If from leukemia, try *arsenic* and good hygiene with a judicious use of *iron*. If from malaria, *quinine* is to be pushed and *arsenic* held as a reserve. If from syphilis, the *mercurials* and the *iodides* are specific. If it is hyperemic enlargement from heart trouble, use heart tonics. If from liver trouble, use eliminatives and liver stimulants, at the head of which Brunton places *sodium salicylate* and Wood places *nitro-hydrochloric acid*, both taken and applied externally.

Without reference to the disease that causes it, I read a few years ago that *digitalis* was the best remedy, because of the effect on the arterioles. I am inclined to think that *ergot* might be useful for the same reason. I have been able to watch, closely, only one case of spleen enlargement. She came into the wards with a loud hemic murmur, a spleen that filled the whole left side of the abdominal cavity and a deep ulcer over the gastrocnemius muscle that caused the leg to become very strongly flexed. I gave her *tonics* and *digitalis* and put her to bed, with weights on her leg. The leg straightened, so that she could walk and the ulcer was better, so she left and went home, from which place she sent constantly for her medicines for several months. When she came in again I found that her spleen was very much smaller and her general health was much better. This time I kept her on the same general treatment and used strapping for the ulcer. In a month after her return she menstruated for the first time, although twenty years old, and during the five months that she stayed, this function

seemed to be regularly established. When she left, the spleen was much smaller, the ulcer was about the size of a silver dime and she felt well and strong. She took with her some *diachylon plaster*, and has since sent me word that she was entirely well and wanted me to come to her marriage, which was to be in a few days.

Most of the cases that come to the clinic for enlarged spleen, come to be tapped, and only after tapping is the spleen found to be abnormal. Some of these are enormous, and some of them come two or three times to be tapped. With so limited an experience, it is needless to say that I am indebted to my library for most that I have written.

*Methodist Episcopal Mission (South), Soochow.*

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## SURGICAL NOTES.

By J. A. OTTE, M.D.

Caso No. 9,041. Male. Age thirty-four. *Raynaud's Disease*.—There was history of syphilis. About July, 1897, after having taken a bath, he suffered from a prolonged chill. Soon after this he noticed a feeling of numbness in the outer lower third of the right leg. At about the same time he began to experience occasional attacks of severe neuralgic pain in the same leg. No other change was at this time noticeable in either leg, except that there was at all times a slight loss of sensation in the leg affected. About two years after this the patient suffered from a protracted attack of severe diarrhea. The numbness and neuralgic pains were now felt in both legs, and therefore the man left Singapore, returning to his home in Amoy. He reached the latter place in September, 1900. For a short time after this there was a slight improvement. This was, in turn, followed by a rapid increase in the intensity of the symptoms. He now felt it difficult to ascend a flight of stairs, because of the loss of power in the muscles of the leg. In November of 1900 he suffered from very severe pains in both legs for some four days, preventing him from getting any sleep. The legs now began to swell for the first time. Blisters appeared on the feet, and soon after the feet and the lower part of the legs became gangrenous. In this condition the patient entered the hospital. He was very weak and emaciated. He used large quantities of opium. The whole of the legs below the knees were red and edematous. In the left leg there was absolute loss of sensation up to the line marked in the photograph, while above this sensation was only impaired. In the right leg there was complete loss of sensation just above the line of demarcation, gradually shading off until above the knee sensation was normal. The patient's temperature ranged between 98.8 99.8 during the day. His pulse averaged about 90. The odour of the feet was very bad.

On March the 25th, 1901, both legs were amputated at the junctures of the lower and middle third of the thigh by the writer and Dr. C. Johnson. Even at this point some of the tissues were slightly edematous. The patient had taken a stiff dose of opium just before the operation. This may have lessened the shock. The stumps were dressed aseptically. On March the 26th (the day after the operation) the temperature was 100. After this it never reached this point again. On the same day the pulse was 108, but for the rest of the time he was in the hospital it remained between 89 and 100. On the third day after the operation the dressings of the left leg suddenly became thoroughly wet with bloody serum. These dressings were removed, and the serum was seen to drop pretty rapidly from one angle of the wound. As nothing could be done dressings were re-applied, and for the time being there was no further trouble.

On the thirteenth day after the operation, the same thing happened in the right leg, twice in twenty-four hours; only the serum was much less bloody. When the dressings were removed the whole of the wound was found closed, except at one angle.

On the seventeenth day after the operation the dressings of the left leg became wet with a brownish straw-colored fluid. Hence this leg was dressed, and the wound found entirely united, except a very small portion about one quarter of an inch long in the centre of the wound.

On the twenty-second day the right leg bled a very little, just enough to show through a very small part of the dressings. This time it was pure blood. The leg was, however, not dressed until the twenty-fifth day after the operation, when the entire wound was found closed. On the 30th day the patient was cured. Soon after this he went home, and promptly committed suicide.

Case No. 11,356. Male. Age eighteen. *Naso-pharyngeal tumor, probably a non-malignant fibroma.*—The tumor had been growing for over two years. During its growth there were frequent attacks of severe epistaxis. As operation had been refused in Manila the patient had come home to die. He was admitted on March 11th, 1901. At that time the tumor was protruding about one-fourth of an inch from the left side of the nose. From there it extended backwards, filling the whole of the posterior nares and most of the pharynx. It pressed down the soft palate to such an extent that deglutition was almost impossible, while speech and respiration were greatly impeded. An unfavorable prognosis was given, as the lad was very anæmic, but on the earnest solicitation of the patient's father an operation was promised. The patient was put on nutritious food, but on account of the almost daily hemorrhages he did not gain in the least. On the nineteenth of March the tumor suddenly became slightly displaced backward, making breathing

absolutely impossible. He was hurriedly put on the table and tracheotomy performed. This followed by artificial respiration after a time brought back consciousness. Ten days after this (the patient having improved a great deal after the tracheotomy) the upper jaw and the tumor were removed. The operation was fairly difficult, but not so bloody as these operations usually are. During the operation the soft palate was cut through near the right lateral attachment. From the size of the tumor this was unavoidable. After the tumor was removed the cut edge of the soft palate was sewn well forward into the cheek, with the result that the opening from the mouth into the nasal cavity was only about one fourth of an inch wide at its widest part, while it was not more than one-half inch long, and completely closed posteriorly. Nineteen days after the operation the patient was discharged cured. During the latter part of December he was seen again. He was then in perfect health, rosy and happy. The tumor was not cut away, but dragged away with its bony attachments adherent to the tumor. This may account for its non-recurrence.

Case No. 11,092. Male. Age forty-five. *Lipoma of the back of the neck.*—This case is given simply because of the large size of the tumor. After its removal it weighed thirteen and a half pounds. The only difficulty was in taking care of two enormous veins, one on each side of the tumor. One of these was the size of an ordinary index finger, while the other was nearly twice as large. Both dipped under the clavicle about three-fourths of an inch from where the section was made. These veins were secured with a double ligature before being cut. The patient was discharged cured eighteen days after the operation.

Case No. 12,816. Male. Age thirty-five. *Epulis of the lower jaw.*—The tumor was attached to two-thirds of the body of the jaw on one side and as far back as the last molar on the opposite side. After removal it was found to weigh fifteen and a half ounces. The growth was principally in a downward direction. From above downward it was four and a half inches in diameter. The patient first entered the hospital on September 19th, 1901. The tumor was then discharging pus into the mouth and gave the appearance of being a sarcoma. He refused to permit an operation at that time. As we would not treat him without an operation he went back to his home. On November 7th, he once more returned to the hospital, and was then quite willing to be operated on. At this time there was a sinus by the side of the chin about an inch deep, and at least one-half inch in diameter at its mouth. The whole of the tissues of the face on one side were swollen and edematous. Hence operation was for the time being refused. On December the ninth the patient once more returned to the hospital. The outer sinus was entirely

healed, but the suppuration into the mouth still continued. On December the eleventh tracheotomy was performed and the tumor removed by the writer and Dr. C. Johnson. All of the body of the jaw on one side, together with about two-thirds of the other side, was removed. The recovery was uneventful; the patient being discharged cured seventeen days after the operation. After removal the tumor was found to be probably a benign fibrous epulis. The suppuration into the mouth and for a time by the side of the chin was in a cyst at the lower edge of the tumor.

*Hope Hospital, Amoy.*

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### OUT-PATIENT DEPARTMENT OF MEDICAL WORK.

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By GEO. A. COX, L.R.C.P. & S., Edin., etc.

I have been reading the various articles in the JOURNAL for some time past on self-support, etc., in medical missionary work with great interest; and now offer a few remarks on one or two points in regard to the out-patient department.

Dr. Johnson's plan of allowing some of the patients to buy their medicines at a drug shop kept by his helper, seems a good one. There is a large class of patients who like to buy drugs already put up, capped and labelled, such as *syr. ferri iodid*, *Parrish food*, *Easton's syrup*, *cod liver oil*, *sandalwood* and *copaiba capsules*, etc. My helper has been doing a similar work here for the past year. He took general charge of a branch of the Foreign and China Great Dispensary, Shanghai, and placed a relative of his in the shop. Gradually he taught this man something of dispensing simple remedies; and has been gradually working up a business of his own. A few months ago I sent a home order for drugs, etc., for him. The out-patients who can pay, or who need special remedies, as well as venereal cases, are told to buy their medicines at this shop, the prescription for which is written on their ticket. The poor are supplied with whatever they need gratis at the hospital dispensary. Thus while the work of dispensing at the hospital is diminished, sufficient is retained to teach the students dispensing. The out-patients pay a registration fee of sixty cash each for each visit. Those who cannot afford it, have the same kind of ticket given them, with the characters for "no money" written on. Those who come on other than out-patient days, and those who cannot wait their turn, pay fifty cents for each visit. All syphilitic cases pay at least \$2 Mexican before they are prescribed for. They readily pay this amount, and I think it has a good moral effect on them. Out-patients are seen only twice a week. This prevents the rush every day and gives plenty of time on other days for operations and clinical and spiritual work.



I do not see any objection to the registration fee. They all pay it readily, and it is much less than what they pay a native doctor for what does them no good. At Tai-yüen Fu we had a collection box in the waiting room with a few characters on it, inviting voluntary donations. I believe more and more in the "pay" system; it helps in some measure to lift them from that moral beggary of which we see so much in connection with missionary work.

There is another feature of the out-patient department I should like to call attention to. Dr. Jefferys referred to it in the last number of the *JOURNAL*. It is that of taking more time and care over each case that comes before one. Better to see a few thoroughly than to have great numbers rushed through. As a rule I leave the out-patients to my helper to attend to, and if there are any difficult cases, he leaves them for me to see at leisure. Occasionally, on a full day, when I go in with him, I notice the patients I prescribe for go to the helper to confirm my diagnosis and prescription. The people have great confidence in him. In talking to him about this department of the work, he says many of the patients are gratified at the way they are attended to in this hospital. "The pulse of both hands is felt, their story of cause, etc., of disease is heard, they are told the name of the disease they are suffering from, and the prospect of getting well; as also how the wonderful medicine prescribed is to dispel the noxious vapors which are antagonistic in his inward parts, bringing about the desired restoration and equilibrium of the gases." Something like the old people in the homelands have confidence in a doctor who listens to their story and agrees with them that the disease is caused by "taking a cold, etc." I am sure it pays in every way to take time over each patient. You make a friend of the patient, and he is willing to listen to the "old, old story;" he recognizes you in the street and speaks well of the foreigner to others. Let us give them the best medicines we have and use as good instruments as we can procure for them.

A native pastor who has been more than thirty years in the work, and very successfully used in two or three different places, speaks highly of having as attractive a guest room and chapel as possible, where the patients and visitors are treated as guests with every courtesy and where they feel at home.

May I ask one or two questions *re* the selling of drugs by a native helper.

1. Ought we to control the price of the drugs? If so, what percentage should be added to the cost of drugs after freight, etc., is paid for? I suppose they should not be sold too cheaply at first.

2. If a mistake is made in the dispensing, will the foreign medical missionary be held responsible?

*China Inland Mission, Chinkiang.*

## REOPENING OF MEDICAL WORK IN CHIHLI.

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By A. P. PEAK, M.D.*Editor MEDICAL MISSIONARY JOURNAL.*

In endeavoring to comply with your request for some account of what has been done in medical missionary work in the reconstruction period in this province, I labor under the embarrassment of not knowing fully, and, being burdened with many and various duties, have not been able, since your letter came, to collect the information as I would like from original sources. If I speak in somewhat general terms, and avoid much individual mention, it will not be because I do not wish to speak of what our friends are and have been doing, but for fear that I may omit something and so appear to slight the work of some of our number; apologizing in advance therefore for errors of omission let us recall that at the time of the collapse of the Boxer movement there were two places where foreigners were still living in this province, and that although at Tientsin the L. M. S., Isabella Fisher, and the Lady Li Memorial Hospitals had been preserved from destruction, by the successful defence of the foreign concessions in the city of Peking, all the mission hospitals as well as homes had been destroyed.

Those of our number who had come through these sieges and were not obliged to go home for a time, made themselves useful in various ways; some in connection with military hospitals, others as interpreters, etc. Naturally missionary societies were not ready to rebuild their ruined hospitals at once; the L. M. S. hospital at Tientsin was occupied as the British Military Field Hospital, so we may say that at that time missionary hospital work was extinct; the two women's hospitals at Tientsin were so surrounded by the international Army of Occupation that the attendance of native women was practically stopped, and nearly the same condition prevails up to this time; the government of the city of Tientsin not having yet been transferred back to the Chinese, the large extension of the foreign concessions has taken them quite up to the native city, and for a Chinaman to have to cross several foreign countries to get to a free dispensary is an experience likely to make him sick if he is not already so; the consequence is that even the L. M. S. with its long established hospital of such wide reputation, has had to give up trying to hold dispensary clinics at the old stand and establish a place where this work can be carried on without the patients having to run the gauntlet of several different species of foreign policemen.

In the city of Peking some sporadic dispensing work has been done for the benefit of our friends, the (late) enemy, both by some of the

medical missionary staff proper and in dispensaries which were the outgrowth of the surgical departments of the foreign armies, for it must be admitted that although the Christian nations are bent upon annihilating the enemy in time of war, they also take great pleasure in binding up his wounds when they have inflicted them. The Red Cross, the Ambulance service, and the Medical Corps of the various armies have done missionary work in illustrating by a practical object lesson the amenities of modern civilized warfare; the pity is that it can be known to so few of the multitudes of Chinese.

Outside of Peking the mission stations of Tung-chou, A. B. C. F. M.; Tsun-hua, A. M. E.; Kalgan, A. B. C. F. M.; and Pao-ting-fu, A. B. and American Presbyterian, were entirely destroyed, and of course their hospitals and supplies either went up in smoke or in the shape of loot into the homes and bosoms of the people. Stray fragments of this flotsam and jetsam have floated into the eddies of the street stalls; the history of some of these fugitive drugs and pieces of furniture would doubtless make entertaining reading, knowing as we do the inquisitive character of the people. The writer bought several boxes of "sparklets" thus of a street vendor, the price bearing little relation to the original cost; one was missing and, asking the reason, the reply was that the possessor, thinking they were some kind of foreign nut, had cracked it open with results that surprised him, and concluding that they were explosive bullets or some such dum-dum sort of thing, he concluded he had no further use for them.

The city of Pao-ting-fu is the only one of the stations mentioned where definite and continued residence was taken up by foreigners during 1901; the writer arriving from America in January of that year was deputed to look after the interests of the American Board at this place, and although the settlement of indemnities, care of refugees, and a multitude of other cares, made life to say the least no holiday, a dispensary has been kept open all the time, and as an interesting result of the greater intimacy between us and the official class, the provincial authorities proposed in 1901 to build and equip a great medical school and hospital, asking the writer to undertake the management of them. This was agreed to, and the project went so far that a scheme drawn up by the treasurer was submitted to H. E. viceroy Yuan and approved by him, the endorsement written by himself pointing out the sources from which the money was to come; so the project seemed secure, but at this point it hung fire and it soon became evident that adverse influences were at work. Gradually and reluctantly it was admitted that the plan was impracticable, and first the school and then the hospital were given up, the alleged reason being want of funds, but the real reason was not far to seek. Both the viceroy and the treasurer expressed their regret and assurance that the delay was only temporary, but it was admitted in private that some of the conservative officials had said that to erect these institutions in the south

suburb near the mission compound and place them under the missionary doctor, was playing all too openly into the hands of the Protestant church.

The reaction is of the same piece with that in Shantung which has forced the conflict there between Confucianism and Christianity in the provincial college. What the future has in store we cannot know, only that in the conflict between light and darkness in this world the light is bound to triumph through the power of Him who first said, "Let there be."

Meanwhile the authorities have presented Taels 2,000 to the American Board Mission to help in the rebuilding of their own hospital, and this important center will be still further served in the American Presbyterian Mission by a memorial hospital to be erected to the memory of Dr. Taylor, who was among the martyrs of the sad catastrophe of 1900. The funds for this, it is understood, have been subscribed by Dr. Taylor's college class-mates.

This issue of the magazine will be on the way to its readers about the second anniversary of the dark days of the Boxer outbreak. With the elasticity of a triumphant faith, the various missions which were so terribly crushed have been collecting their forces, making plans not only for the old scale and scope of their enterprises but with larger outlook into the new future; and the brightest prospect for our medical missionary work in the north lies now in a new combination of interests, a fusion which perhaps could never have taken place but for the fiery trial through which our missions have come.

Four of the large missions, viz., the London Mission, the American Methodist, the American Presbyterian, and the A. B. C. F. M., have formed an educational union, in which their united strength is to be put into a great university whose departments—medical, theological, and literary, with liberal arts—are to be developed by these various societies in concert; the whole to take the name of the Peking University, although the great plant of the North-China College of the American Board will be rebuilt at Tung-chou as a part of this scheme. This is not the place to speak at length of this most interesting development in all its details, but for our special department the members of the Medical Missionary Society will be glad to hear that the medical school will be located in Peking; the honor of developing the plant being conceded to the London Mission, but each of the co-operating societies promising to place a medical man on the faculty which will thus start with a staff of at least four foreign professors. No further details have been settled, and the formal ratification of the plan has not yet been received from all the home Boards, but enough correspondence has passed to assure us of their approval. There will of course be hospital facilities developed for clinical instruction, and we may surely now thank God and take courage in view of the greater things which we may be privileged to do "For His sake and in His name,"

*American Board Mission, Pao-ting-fu.*

## RECOMMENCEMENT OF MEDICAL MISSION WORK IN MANCHURIA.

By Dr. J. R. GILLESPIE.

Medical mission work was completely interrupted throughout Manchuria during the reign of terror in 1900. With the exception of extern work done in the port of Newchwang, it was not resumed till March, 1901, when Dr. Greig recommenced work in Kirin.

From time to time other stations were reoccupied, until in March, 1902, there were medical missionaries at work in six other cities—Moukden, Liao-yang, Shin-min-t'un, K'ai-yüan, A-shi-ho, and Chin-chow.

All mission property in the interior of the province was destroyed in 1900, and none of the hospitals have yet been rebuilt. But in most places the mandarin has lent or rented temporary premises for a period of two years. The Chinese officials are at least outwardly friendly, and in more than one instance have sought the professional aid of the medical missionaries for themselves or their immediate relatives within the last year.

The Russians take a friendly interest in the medical part of the work, and several of them have given contributions of money. Some of them have been patients of the missionary doctors and have paid fees which have been used for fitting up dispensaries, etc.

Unfortunately health considerations have necessitated the return home of several of the more experienced medical missionaries, among the number being Dr. Christie, of Moukden, senior medical missionary of Manchuria, and Dr. Westwater, of Liao-yang. At the time of the Boxer rising, Dr. Westwater did Red Cross work for the Russians and entered Liao-yang with their army. He was the means of saving the town from destruction, and thus earned the gratitude of the Chinese, who presented him with numerous scrolls and banners on the occasion of his departure for home some months afterwards. His work is being carried on by Dr. Muir in his absence.

In Kirin, Dr. Greig has had a year's work that compares favourably with that of former years. Up to the end of last Chinese New Year he had had from the previous March 167 in-patients and 2,174 extern patients; the latter paying on an average three visits each. There were fifty operations under *chloroform* and 157 under *cocaine*. Preaching was regularly conducted as in former years.

In Moukden medical mission work has been carried on since last September by Drs. Ethel Starmer, Mary Horner, and Margaret McNeill. Patients came freely from the first, as in Kirin, and the work has been conducted on similar lines. At first, however, there was no accommodation for in-patients, but in

March, when this was obtained, all the available space was soon filled by nine patients; some of them being accompanied by friends.

In Shin-min-t'un likewise Dr. Learmonth has found the people willing to come and has done a good winter's work. In K'ai-yüan and in Chin-chow the wife of the clerical missionary is a qualified doctor, and has at present sole charge of the medical department. Mrs. Stobie returned to K'ai-yüan in July, 1901. Her patients were mostly church members at first. The heathen were said to be ashamed to come after the way they had treated the missionaries. But they soon overcame these scruples; some even came wearing remnants of the missionaries' clothing. Many attributed their ailments to the exposure and privation of the previous year. Mrs. Keers recommenced medical work in Chin-chow on 1st March, 1902, under similar conditions to those just described. She has not had large numbers yet. There were seven in-patients in the month of March.

Dr. McKillop Young in A-shi-ho and Dr. Gillespie in the port of Newchwang, have been chiefly occupied with study of Chinese, but have done some dispensary work, chiefly for Christians and their friends. Another medical missionary, Dr. Emma Crooks, has just arrived from Ireland.

After a period of torpor, signs of awakening are beginning to appear again. Enquirers are again being enrolled, and recently a number of baptisms of adults have taken place.

*Irish Presbyterian Mission, Newchwang.*

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#### BRITISH MEDICAL MISSION LIST.

Year by year the number of medical missionaries on foreign service steadily increases. To-day the number stands at 312. A year ago it was 295. Twelve years ago, when we began this enumeration, it was 125. The average yearly increase during the twelve years has been close on 16. It is interesting to note the variety of increase as affecting the different churches and societies. Referring only to medical missionaries holding British degrees, the Church Missionary Society, for example, has risen from 19 in 1890 to 59 in 1902; the United Free Church of Scotland, from 32 to 52; the London Missionary Society, from 10 to 31; the Church of Scotland, from 5 to 19; the Presbyterian Church of England, from 13 to 19; the Society for the Propagation of the Gospel, from 3 to 15; the Church of England Zenana Society, from 1 to 12; the China Inland Mission, from 6 to 13, etc. In the same period the lady medicals have risen from 12 to 91.

As in previous years, India takes the lead with 115, and China follows close with 106. Africa claims 36, and Palestine 17. At a long interval Persia follows with 7, Madagascar and New Hebrides each with 6, while Egypt and Japan each has 4. The remaining 11 are scattered as units in various parts.

Of the 312 the Presbyterians claim 114, the Church of England 87, the Congregational body 31, Wesleyan 11, Baptists 7. The rest are in mixed societies.—*Med. Miss. at Home and Abroad.*

## Medical and Surgical Progress.

## Medical.

Under charge of ROBERT T. BOOTH, M.B., B.Ch., R.U.I.

## LEUCOCYTOSIS.

It is not improbable that the recent advances in our knowledge of the blood and the new methods of staining and examining it, may prove of greater practical value than even such a discovery as that of the tubercle bacillus. Already we recognise the importance of the blood count in obscure cases. One of the first rules that we must bear in mind is that there is *no leucocytosis present* in serous pleurisy, tubercular peritonitis, or in measles, mumps, malaria, or in uncomplicated typhoid or phthisis. In appendicitis, leucocyte counts between 10,000 and 15,000 or 17,000 cannot be depended on in diagnosing the form of appendicitis since they may be found in catarrhal cases. However counts of 20,000 or more almost always indicate the presence of pus, gangrene, or general peritonitis. A single blood count is not sufficient to base a prognosis on. If, however, by repeated examinations a progressive increase in the number of leucocytes is detected, it may be concluded that the collection of pus has become more extensive, or that a general peritonitis has been excited. Perforation is usually accompanied by an abrupt rise in the number of leucocytes. After operation complete emptying of the abscess is followed by a decline to normal of the number of leucocytes; persistence of leucocytosis after the third or fourth day following operation is usually due to undrained pockets containing pus, or to general peritonitis. Hence the value of a daily leucocyte count after operation. Similar changes occur in ovarian abscess, pyosalpinx, ectopic pregnancy, perinephritic abscess, hepatic abscess, and malignant disease of the cæcum. But if the diagnosis lie between appendicitis and typhoid

fever, *leucocytosis* suggests the former, for it occurs in the latter only when perforation has taken place.

Leucocytosis also excludes non-inflammatory conditions, such as, simple enteralgia, lead colic, ovarian neuralgia, ovarian cyst, and movable kidney.

In simple obstruction of the bowels a high count should lead us to suspect gangrene. In pneumonia and other septic diseases the usual *leucocytosis* is *absent when an attack is very mild, and also when it is severe and likely to prove fatal*. This is due to the fact that the blood fails to react. In some cases there may even be leucopenia.

In malignant disease and acute rheumatism there is a moderate increase of white cells, and the blood film obtained from rheumatism, like that from a case of pneumonia, shows a network of fibrin as it dries.

When we turn from the question of leucocytosis to the count of red corpuscles, and the amount of hæmoglobin, we also derive important information. In practically every case of appendicitis the hæmoglobin in the blood is diminished. In one series of cases the average loss was thirty per cent. If we are in doubt whether we have to do with the effects of a severe internal hæmorrhage on the one hand, and on the other of concussion of the brain, or peritonitis in abdominal cases, it is worth remembering that in the former case the red cells will probably be reduced to three or even one and a half millions and hæmoglobin to perhaps a third of the normal. In chlorosis the red cells number three or four millions, but the hæmoglobin is only thirty per cent. to fifty per cent. In pernicious anæmia the red cells are only one and a half millions or less, but the hæmoglobin is high, and the

average size of the red cells is large; many are deformed and some are nucleated. In leukæmia, together with some nucleated cells, there are great numbers of white ones, either lymphocytes or myelocytes. In secondary anæmias there is a condition like that of chlorosis combined with leucocytosis. In pregnancy we get a marked leucocytosis which may afford one means of distinguishing it from ovarian or fibroid tumours.

We thus find that there is opening up before us a method of differential diagnosis to which it will pay us to give marked attention.

With the difficulties of separating the various forms of fever which we meet from time to time, both in Chinese and foreigners, we are all familiar. We may find that with a little attention to the leucocytes in our patients' blood we have found a way out of some of the difficulties, and thus be able to relieve ourselves and the patient.

#### SULPHUR IN THE TREATMENT OF DYSENTERY.

In the *Lancet* for November 23rd, G. E. Richmond, B.A., M.B., etc., writing after his experience in South Africa, concludes that the best treatment to adopt in cases of dysentery, is *ipecacuanha*, guarded by opium and combined with warmth and rest in bed. However in some cases he found that the patients derived little or no benefit from this treatment, and arguing from an analogy he adopted the *sulphur* treatment. The use of *sulphur* in dysentery was suggested on the analogy of the treatment of anthrax by *sulphur* as advocated by Mr. Arbuthnot Lane. *Ipecacuanha* was formerly used locally in the treatment of anthrax, and it seemed natural that if *sulphur* was more successful in anthrax, it might also be in dysentery. The results in Dr. Richmond's hand justified the expectations, for in every case recovery resulted, and there

seemed to be little or no tendency to relapse. To the patients it was a boon, as the obstinate vomiting caused by *ipecacuanha* was entirely absent, nor was it at all necessary to starve them as when taking *ipecac.* Every patient was ordered farinaceous food from the first. It is of the utmost importance that meat be excluded until the diarrhœa has ceased for a week. Twenty grains of *sublimed sulphur*, combined with five grains of *Dover's powder*, were ordered every four hours. From the administration of the first powder the patient became more comfortable, and the diarrhœa, tenesmus, and griping pains were greatly relieved. The passage of blood and mucus ceased as a rule in two days. Dr. Richmond then quotes several cases in proof.

Since seeing the above recommendation I have tried the treatment in one case in my wards here (Hankow, W. M. S.). A lad was passing between fifteen and twenty motions in the twenty-four hours. *Mag. sulph.* in drachm doses every hour produced no amelioration; for this, *tannalbin* and *bismuth* was substituted; still without any good result. Ext. of *coto* was then tried for forty-eight hours, but failed to arrest the diarrhœa. He was then put on *sulphur* and *Dover's powder*, and within twenty-four hours the motions were reduced to five, and the day following to four, and then for a week two or three motions in the twenty-four hours. The patient's condition rapidly improved. One cannot speak confidently after a single trial, but the success warrants further trial.

#### GUMMATA OF THE PALM.

Three years after infection, during which period specific remedies were exhibited, a patient sought advice for lumps on the hands, which varied in size from a pea to a nut, and interfered with his work. There were about twenty on each hand, principally on the palm, but one or two



were on the dorsal surface of the fingers. They began as painless nodules of the size of a pin head, adherent to the deep parts, but not to the skin. Ten of the largest were excised as simple fibromata. After operation the patient had some difficulty with the movement of the fingers, which was relieved by massage and electricity. Three years after, when under treatment for rheumatism, it was found that not only had the excised tumours not returned but the smaller ones, which had not been touched, had almost entirely disappeared. During this interval of three years he had been under specific treatment. It is to be remarked that gummata in the palm have been rarely reported. Palmar gummata, being resistant to treatment for a long time, *iodide* should be given.

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UNRECOGNISED FORM OF  
HEART DISEASE.

In the *Archives Generales de Medicines* for December two writers have made a careful study of a well marked but unrecognised form of cardiac disease. The symptoms are as follows: A man, generally between twenty and thirty, in good health, is seized more or less suddenly with difficulty of breathing, or with symptoms of embolism, cerebral or pulmonary. There may be repeated hæmoptysis, work may soon become impossible on account of dyspnœa, and the patient is obliged to take to bed. In other instances the onset is more gradual. For a month or longer the patient suffers from increasing debility, which renders his occupation more or less trying. There are for some weeks cough and dyspnœa on the least exertion, loss of weight and possibly diarrhœa. Hæmoptysis may then appear and be so profuse as to suggest pulmonary tuberculosis. Some pyrexia and progressive wasting support this idea. Soon, however, the symptoms

of cardiac failure appear. Cardiac dyspnœa becomes more marked, preventing sleep as well as work. Œdema begins in different parts of the body. Notwithstanding rest, dietetic and medicinal treatment, the dropsy increases in extent, the thighs, abdomen, loins, upper limbs, and the face may be invaded. The liver becomes enlarged, the urine scanty and high-coloured and uratic. The lungs show signs of œdema. There is marked orthopnœa. During all this time the hæmoptysis continues more or less. Early in the case albuminuria is discovered, and the case may be diagnosed as nephritic. The progressive character of the disease is one of its most salient features. Once the patient takes to bed he never gets up again. In striking contrast to valvular disease, not even youth and vigour prevent the insidious advance of the disease. Physical examination reveals some curious facts. The pulse is strangely good; even within a few hours of death it may be regular, rarely showing arrhythmia or undue frequency. The heart is hypertrophied. Sometimes it may be difficult to accurately define the apex beat, but marked dilatation of the right ventricle, epigastric pulsation, and diffuse vigorous impulse all point to considerable increase in size. In some cases the apex may be found in the sixth space far outside the nipple line. Auscultation shows no valvular lesion. A soft blowing murmur is heard at times, but its character is against its being organic. According to the writers a "bruit de galop" is a constant feature. A patient with marked œdema, hæmoptysis, progressive asphyxia, and a pulse that is either normal or only slightly altered, and a "bruit de galop"—such is the clinical picture of this condition, which progresses to a fatal end. The duration is from four to eighteen months. Treatment seems unavailing, and digitalis is useless. Theobromine which is of considerable value in some cases of cardiac disease is of no use. Inhalations of *oxygen*

and injections of *morphia* give some relief.

The diagnosis at first is very difficult. The progressive emaciation and hæmoptysis suggest phthisis, especially in the presence of apical râles and, possibly, of slight pleural rub. Nephritis may be diagnosed, but the sp. gr. of the urine remains high, and there are no casts. The P. M. conditions are interesting. The liver is enlarged and fatty, the kidneys are congested, but have an easily separable capsule. They usually show marked infarction. The pleural cavities contain some blood-stained fluid, the lungs are intensely congested and show infarcts of various sizes. The heart is much enlarged, and may weigh from seventeen to nineteen ounces. The left ventricle always, and the right ventricle sometimes, contains much clot, filling the lower third of the cavity. The clot is grey and granular and more or less adherent to the cardiac wall, from which it is difficult to separate it. This *parietal thrombosis is a characteristic feature*. The ventricular wall beneath the clot shows fibrous changes to an extent corresponding to the area of the adherent clot. Microscopically it has a fibrous greyish appearance. It is

resistant to the knife, and shows variations in color from brown to yellow.

It is difficult to say where the endocardium ends and the clot begins, as the latter has become so intimately adherent to the ventricular wall. This lesion is primary; the remainder of the heart being healthy. It seems to be of inflammatory origin and to have developed independently of either endo- or peri-carditis, i. e., it is primarily myocarditic. Microscopic examination shows bands of fibrous tissue extending right through the sections of the myocardium. They are so abundant that the muscle fibres seem to be obliterated. A characteristic element is the presence in the midst of these fibrous bands of *small areas in a state of active inflammation*. The vessels usually show little, if any, alteration. As to the causation of this curious condition, the writers have found it only in males and young subjects. In no case was there a history of syphilis, rheumatism or alcoholism. There was no evidence of any infective disease. The writers conclude that the heart may be the seat of a *primary interstitial myocarditis* which varies in acuteness. The general characters of the cases suggest some *infection*.

### Skin Diseases.

Under the charge of KATE C. WOODHULL, M.D.

The account of the recent discoveries of the healing effects of the actinic rays of the sun by Finsen and Kjeldsen, reads like a fairy tale. We give below an abstract of an article in *Modern Medicine*, for February, 1902, entitled "Latest Developments of the 'Finsen' Method of the Treatment of Lupus." By Dr. Kattenbrack, medical practitioner at Pandau:—

"Not until a few weeks ago did Dr. Finsen, of Copenhagen, come forward with his epoch-making discovery

that the actinic rays of the spectrum supply a remedy for one of the most troublesome and stubborn diseases, conducive to the most unsightly disfigurement of the features, namely lupus. Both as regards its unflinching efficacy and the final results of its skin-healing and beautifying action, the newly-discovered cure was destined to overshadow and far surpass all the methods previously used, such as surgical operations, eschorotics, cauteries of the many various kinds, etc. In view of the inadequacy of all the

older remedies then known, it is not to be wondered at that in medical circles the new therapy was at first regarded with a certain skepticism. But, presently, the vast number of patients that had been cured by the "Finsen" method of treatment of lupus in its most acute forms, compelled medical authorities to recognize the undoubted fact that it is really feasible to utilize the bactericide properties of actinic rays which, in themselves, had already been known for some considerable time in combating an affection, such as lupus, which may be said to have hitherto defied practically all known remedies.

The mode of employment of actinic light rays, which are now in general use, and which in Germany in particular are adopted even by the universities, is commonly known to be as follows: Sunlight or electric arc-light is concentrated by means of powerful condensing lenses and directed on to the diseased part through water-cooling apparatus; the seat of the disease being, at the same time, made as nearly exsanguineous as possible by the pressure of special rock-crystal glasses, so that the rays may the deeper penetrate the tissues. The treatment is perfectly painless, as the heat rays contained in the light are almost entirely absorbed by the layer of water or sulphate of copper. A fact which may be assumed to be generally known, is that the bactericide action can be claimed solely for the actinic (i.e., the blue, violet, and ultra violet) rays. Now, wonderful as were the results which had already been achieved by the "Finsen" method, a great many obstacles stood in the way of its introduction into general use—primarily in the heavy expense involved in the necessary equipment, amounting as it does to something between £150 and £300. This large sum of from \$700 to \$1,500 is required for the erection of special premises and the provision of a large staff of attendants, inasmuch as each

period of treatment lasts at least one hour, during which a special attendant is required for each patient to manipulate the pressure glass. (At Dr. Finsen's own establishment a number of ladies, belonging to the better classes of society, give their services for this purpose voluntarily.) Then in addition to sunlight, which is available for therapeutic purposes in certain seasons of the year only, and during a limited number of hours daily, powerful arc-lights (of say, eighty amperes) have to be used, also, the number of actinic rays which are obtainable (and no other rays can be employed) is comparatively small, seeing that in the spectrum of the arc-light now commonly used, more than one half of the rays are heat rays, which must be eliminated by means of the water filters, etc., already alluded to. The object was therefore to find a source of light, which contrary to the usual carbon arc-light, should show a preponderating proportion of actinic-light rays and as small a proportion of heat rays.

The experiments which were made with this object by the engineer Kjeldsen at the Finsen Institute, and which involved the employment of an almost inconceivable variety of metals, as electrodes in lieu of carbons, led to the surprising discovery that it is precisely the spectrum of iron that is particularly rich in actinic rays. On the strength of this discovery Kjeldsen has devised a special lamp for carrying out the "Finsen" method of treatment, in applying which he employs hollow iron electrodes, which are cooled internally by running water. As was pointed out by Bang at the Congress of Naturalists at Hamburg, the trials, first made at the Finsen Institute, led to a result which, in the therapeutic respect, went beyond all expectations. There is obtained light of high intensity, with which, in three minutes, the same therapeutic or rather bactericide effect is secured which, in the old arrangements, could not be produced in less than about an hour.

Reports such as these were calculated to give rise to more searching tests, and these were carried out at the institute of Dr. Aufrecht in Berlin, with the object of ascertaining the effect of the light of an iron electrode light lamp upon bacteria."

Then follows a minute account of the experiments.

"These tests have clearly brought out in practice that the bactericide power of the actinic rays, and especially their curative effect, have been established beyond doubt in the cases of innumerable patients, and that we have before us an apparatus leading to the same results in considerably less time than would be otherwise feasible and with a considerable reduction in the expenditure of electrical energy. For, whereas, with the old "Finsen" arrangements from eighty to one hundred amperes of current were required, the new lamp now introduced under the name of "Dermo" by the Sanitas Electrical Company of Berlin and placed on the market in a particularly handy form, demands only five amperes to produce, in three minutes, the same effect, which it previously took nearly a whole hour to secure. Besides this the cost of the installation scarcely reaches one-tenth of the outlay necessitated by the old arrangement; and inasmuch as the staff of attendants formerly required may practically be dispensed with altogether, every consulting physician is thereby enabled to carry out Finsen's method of treatment during his usual hours of attendance. The pressure glass is here replaced by a disc of rock crystal, which shuts the slit or aperture through which the light of the lamp is emitted, and which for the purposes of treatment is laid upon the main seat of the disease. The patient experiences no sensation of heat at all, since, at a distance of ten centimeters from the luminous arc, the average temperature does not exceed twenty-two centigrade. The strongly irritating effect of the actinic rays of light to which Dr. Finsen as well as others had already called

attention years ago, manifests itself in a very striking manner in this new apparatus also, for a few moments after they have begun to act, a perfectly painless, and as the observations in the Finsen institute have shown, long enduring erythema is brought about."

"It is of course obvious that the new lamp may in the same way be employed for other skin diseases, as long as they are amenable to treatment by the 'Finsen' method."

Another account of the use of the Finsen light method is given by A. Ravogli, M.D., in the *Journal of Cutaneous and Genito-Urinary Diseases*, January, 1902. He describes briefly the photo-therapeutic apparatus he uses, made in accordance with Finsen's principles as modified by Professor Lortel and Dr. Genoud of Lyons, France. To obtain the result a light is used which has abundant chemical rays, and the light is cooled so as to prevent the passing of the thermic rays. The blood in the tissues prevents the action of the light from going through, and for this reason the condenser is applied directly on the skin, in order to produce with its pressure a temporary ischemia in the place which is being treated. With this apparatus an exposure only of ten to twenty minutes is sufficient to obtain the desired effect. The treatment does not cause any pain, except when on ulcerated places the pressure causes slight discomfort. Dr. Ravogli gives two cases he has treated with success, as follows:

"I have obtained a perfect recovery of a tubercular ulcer on the skin of the dorsal region. It was an ulcerated spot, the size of the hand, seated on the dorsal region above the angle of the scapula. It consisted of small ulcerated nodules somewhat elevated above the level of the skin, coalescing together. My diagnosis was that of tuberculosis of the skin (lupoid). I exposed the sore to the condensed light for fifteen minutes, twice a week. The exposure to the

light stopped the itching and burning sensation. The whole surface became erythematous. The ulcers appeared as if painted with gelatin, and in a short time they healed up. The small tubercles have disappeared, and the patient has perfectly recovered." "I am applying the same process in other cases of a tubercular nature. A girl sixteen years old came to my office with an enlarged submaxillary gland on the right side of the neck. My opinion was that it was of a tubercular nature. *Salves and tincture of iodine* had produced no benefit. I applied the light directly on the gland for twenty minutes, and at the end of the application the gland could scarcely be felt (!) The patient did not return for further treatment, and I can say she did not need my services any longer."

Cases of acne rosecia, rosacea and alopecia areata are still under treatment with promising results.

Finsen establishes the time in which to accomplish the cure of lupus as from four and one-half to six months. It is necessary to have the patient under observation for a long period, and in case of relapse to apply another treatment.

Finsen has already reported 533 cases of lupus vulgaris treated with his method with satisfactory result.—*Medical Review of Reviews*, January 25th, 1902.

*X-ray Dermatitis*.—Dr. S. E. Querra presented a patient at the London Dermatological Society, November 13, 1901, who had suffered from X-ray burn after treatment by a layman with seances of half hour duration each on three occasions. An intense inflammation had developed, and for six weeks the patient was unable to take solid food; the affected areas healing only after months. A disfiguring scar resulted, involving the upper lip and extending beyond

the angle of the mouth on either side.—*The Post Graduate*, March, 1902.

*Lupus Vulgaris*.—In the *Lancet*, March, Swales reports two cases of lupus vulgaris successfully treated with *urea pura* and the X-rays. The results of Dr. H. Harper of Nottingham in the treatment of phthisis with pure *urea* suggested to this author the use of this drug in the treatment of lupus vulgaris. Two very bad cases of lupus vulgaris were given the following treatment: Daily X-ray exposure for seven minutes, and *urea* in twenty-grain doses three times a day. The first case was that of a woman thirty years of age. In this case the lupus extended from ear to ear, spreading out like a butterfly. Ulceration was so pronounced that the nasal bones were visible through the weak and indolent skin. Adenitis was also present. A suspicion of tubercle was present at the apex of the right lung. All signs of the disease disappeared after a rather prolonged treatment with X-rays and *urea*. The other case was a woman, thirty years of age. The entire face was one mass of ulcerations and scabs. All signs of the ulceration disappeared in this case. The author remarks that he particularly wishes to emphasize that he employed low pressure tubes, thereby preventing severe dermatitis in the neighboring healthy skin. There was little trouble in carrying out the treatment, which was of comparatively short duration, and the patient's general health improved. The scars which remained, did not present the marked puckering and contractions so commonly seen in cases treated by the old method of scarification. The expense of the *urea* is the only objection to the method.—*The Philadelphia Medical Journal*, March 29, 1902.

## Surgical.

## STAB WOUND OF HEART.

Dr. Niebert, of St. Louis, reports the following interesting case in the *Philadelphia Medical Journal*:—

The case which came under my observation, and a report of which follows, entered the hospital at 6 00 p.m. on April 20, 1901, with a history of having been stabbed two hours prior to admission. The patient was a young man, twenty-two years of age, well developed and weighing about 180 pounds. He was in an unconscious condition, and all information had to be obtained from an officer who accompanied him. According to the officer's statement, patient, during an altercation with another man, had been stabbed in the chest with a knife. It was also learned that after the injury patient ran a distance of 100 feet, when he fell exhausted and unconscious.

A knife wound was noticed three quarters inch in length and situated at a point corresponding to the fifth intercostal space on the *right* border of the sternum. Wound was filled with small clots of blood and the bleeding from it amounted to about as much as one would expect from a small superficial skin wound and did not impress one as being connected in any way with the heart.

The physical examination, however, revealed the true nature and depth of the wound and that an internal hemorrhage was taking place. The pulse was imperceptible. No apex beat could be found. Examination of the femoral arteries elicited a slight pulsation of those vessels. A feeble pulsation could also be detected in the carotids.

An immediate operation was decided upon, and after the usual preparations a semi-circular incision was made in the skin over the sternum with the base of the flap toward the left side. The cut was made through the stab wound and laid bare the bony wall to the extent of about three inches in diameter. The patient being unconscious, no anesthetic

was necessary. On raising the flap it was found that the knife had penetrated between the fifth and sixth ribs immediately to the right edge of the sternum. It was decided to follow the recommendation of E. Giardano in his surgery (*La Chirurgie del Pericardie e del Cuore*) where he advises, first, to follow canal of wound to pericardium and heart rather than make an osteoplastic flap, as it might be sufficient to stop hemorrhage through a small opening in this way. The cartilages of the fifth and sixth ribs on the right side were severed near the sternum, then by means of the rongeur a sufficient portion of the sternum was removed to bring the cut in pericardium plainly into view. A cut three quarters inch in length was found in pericardium, from which very little blood flowed, as a large clot was lying immediately behind, preventing the escape of any liquid blood. With the finger introduced into the pericardium I could feel the cut in the heart. In order to be able to approach this wound, it was thought necessary to enlarge the opening in the sternum, which was done, so that it measured two inches in diameter, the pleura being left intact. The edges of the cut in the pericardium were then seized with forceps and the wound enlarged, making it two inches in length. That a high pressure existed in the pericardium was shown by the fact that the blood spurted from the cut, carrying with it large coagula. The heart, which had hitherto acted feebly, was now becoming more forcible and began to press the blood clots forward.

It was noticed that the thickest layer of coagulated blood was found against the posterior surface of the heart and was removed partly by means of the finger hooked around the heart and partly by a stream of physiological salt solution poured into the sac. After removal of all the clots the heart beat was 100 per minute, regular and forcible.

The hemorrhage from the heart during all this time was controlled by pressing the tip of the finger into the cut. Before suturing the edges of the wound, the bleeding from the wound was carefully observed, and it was noticed that it occurred mostly during diastole and almost ceased during systole. The wound in the heart measured half inch in length, the line of the cut running parallel to the longest diameter of the heart and was situated in the center of the wall of the right ventricle. The blade seemed to have penetrated it obliquely.

In order to facilitate the suturing of the heart, the edges of the cut were seized by two narrow Kocher forceps and the organ drawn forward into the opening in the sternum and held there until the first suture could be introduced, after which forceps were removed and the heart was held by the suture. Three interrupted silk sutures were required to stop the bleeding, care being taken on introducing the needle not to include the endocardium. The knots were drawn together and tied during diastole. The patient was then heavily stimulated by injections of whiskey, *strychnine* and physiological salt solution.

While suturing the heart, patient became conscious and conversed in a perfectly rational manner; he discussed the injury and, on inquiry, stated that

he felt no pain, nor was any perceptible shock noticed while the heart was being manipulated.

The pericardium was partly closed and a small drain of plain gauze introduced. The flap of skin was stitched back with the exception of a small opening for drain.

#### POST OPERATIVE COURSE.

Immediately after the operation patient's temperature was 98°, pulse 110, respiration 30.

At 6 00 o'clock the next morning patient had a temperature of 98°, pulse 120, respiration 30 and was resting fairly well, was most comfortable with chest elevated to almost sitting posture.

During the entire course of treatment patient was regularly stimulated with whiskey and *strychnine*. Hypodermic injections of physiological salt solution were administered every three hours.

Patient had a complete suppression of urine, as repeated catheterization of bladder did not furnish enough to enable us to make a urinalysis.

About thirty-two hours after the operation the patient's condition gradually grew worse. Temperature rose to 104°, pulse became very rapid. Patient died thirty-three hours after operation, having remained conscious up to the last moment.

### Diseases of the Eye.

Under the charge of James Butchart, MD.

No class of cases is more common in the dispensary than granular lids, hence a good routine treatment is valuable, yet it is well for us to be armed for cases that do not do well under the routine.

Lately a number of these methods of treatment have appeared in the journals and are here collected into one place for the sake of convenience in reference.

The first treatment recommended, if

the case is seen when the granules are well marked and not covered with the enlarged papillæ, is Knapp's operation with the roller forceps under ten per cent. *cocaine*, giving special attention to the retrotarsal fold and the inner canthus. This will greatly hasten a cure. The granules are round cell proliferations which eventually become connective tissue, leaving white scars. The problem is to get rid of them as soon as possible with the least possible

destruction of the normal tissue. After the operation I apply thoroughly *nitrate of silver*, two per cent., or *bichloride of mercury*, 1/1,000. *Atropine* should be used in cases where there would not be a special danger of glaucoma.

In cases where the conjunctiva is intensely red and the discharge is profuse, *nitrate of silver* or *protargol* holds the first place. When the case is more chronic *aluminate of copper* in the stick form, the *lapis divinis* is preferable to the more severe *sulphate of copper*, which should be reserved for the most obstinate cases, as it is severe, painful, and apt to cause iritis if its application is not made with caution.

In old cases with much scar tissue the patients like an application of *iodoform* in oil, which is also very soothing after any of the more irritating applications.

Some other methods are recommended.

G. De Wayne Hallett advises using *bichloride of mercury* 1/1,000 with friction of the conjunctiva with a probe covered with cotton. The eye is cocaineized with a ten per cent. solution. The patient, looking down the lid, is seized firmly by the cilia and the lid drawn off the eyeball. The cotton is passed several times from side to side and well up into the retrotarsal fold.

Corneal ulcers and pannus are not contra indications for the treatment, but improve under it. Some increase of the congestion and lachrymation lasts for six to twelve hours when the benefit is noticeable. The treatment should be repeated every three or four days. This is the routine treatment in one hospital, and considered to give altogether the best results.

He also recommends the copper electrode, positive pole, to the diseased tissue, with one and a half to three milliamperes of current. The effect is the same as above.

Dr. Schenck recommends very strongly the nascent *iodide of silver*

prepared as follows: *silver nitrate*, one part; *glycerine*, two parts; and *water*, one part, to make *solution Number 1*. *Iodide of potassium*, two parts; *glycerine*, four parts; and *water*, two parts, to make *solution Number 2*. To five drops of Number 1 add ten drops of Number 2, and you get a pasty yellow gelatinous mass to be applied to the lids with a swab. It is to be mixed fresh each time it is used, so as to be in the nascent state. There is but little irritation of the lids; pannus will clear up, and lids streaked with scar tissue will become soft and velvety.

I have gotten good results from this in the end of cases of gonorrhœal ophthalmia.

Dr. J. L. Moffat recommends the *iodide of silver*, but claims that in many cases he gets better results from a solution of *formaldehyde* used every three hours, commencing with a solution of about 1/2,500 that causes redness that passes off in a few minutes, and increasing the strength as the eye becomes more tolerant.

G. C. McDermott recommended to be used as a frequent wash: *zinc sulphate*, grs. ii.; *iron sulphate*, grs. ii.; *alum*, grs. ii.; and *common salt*, grs. iv. I have used this also in catarrhal conjunctivitis, as it is mildly astringent.

*Bichloride solution*, 1/3,000, 1 to 6,000, as the eye is able to stand it, is also highly recommended.

*Bichloride of mercury* of the same strength is equally good and has the advantage of not being precipitated if a little *iodide of potassium* is added.

Dr. T. M. Stewart, of Cincinnati, calls special attention to the bad influence of improper diet, either too little or too much or of a bad quality.

Alcohol and tobacco are also to be condemned. And why not; we all know how marked is the influence of diet on gonorrhœa and other infections of the mucous membranes.

Auto-intoxication is another thing to be guarded against, and we will often see a case improve when constipation is removed.



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## Editorial.

All communications concerning the Editorial Department of the *China Medical Missionary Journal*, should be addressed to Dr. JAMES BOYD NEAL, Chinanfu, via Tsing-tao. All business communications and subscriptions should be sent to Presbyterian Mission Press, 18 Peking Road, Shanghai.

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### MEDICAL COLLEGES IN CHINA.

The good news contained in Dr. Swan's article in the last issue of the JOURNAL that a movement was on foot for the establishment of a strong central medical school in Canton for South China, is followed in this issue by the announcement in Dr. Peck's article of the formation of an equally strong medical college in Peking for North China. In Canton the proposed college of medicine will be simply the development of the school which was begun and carried on for many years by Dr. Kerr, and which has always been under the care of the Medical Missionary Society in China, a non-sectarian local Society of Canton and Hongkong.

It will start out with the prestige of years of successful teaching already accomplished—more than 150 men and women having already been trained in Canton—it will have the support of a non-sectarian society which has always liberally supported the Canton hospital, upon which the school will largely depend for its clinical material, and will be in the midst of a dense population with strong missions, from which to draw young men, so that all the elements of success seem to be present, and we may safely predict a bright future for the medical college of South China.

In Peking, while comparatively little has been done in the past in the line of medical training, so that the new school will have little to build on in that respect, still it will have the great advantage of starting as a union institution, the four missions—London, Methodist, Presbyterian, and American Board—having banded together in the establishment of the college.

With four strong missions back of it, and the possibility, as railroads are laid down, of drawing from neighboring provinces, there seems little reason to fear for the future of the northern school.

Meantime the scheme for establishing an Association school for the Yangtsze valley seems to languish. When the proposition was made in Shanghai in the spring of 1901 that the Association go in for a central medical school, it was felt by many who took part in the discussion that such a school for all China would be a practical impossibility, owing to the great distances, poor means of communication, and differences of dialect. But it was felt to be quite feasible to found such a school somewhere in the valley of the Yangtsze which would be capable of supplying the needs of Central China, locating the school at either Nanking or Hankow. When, however, the Shanghai proposition for a Yangtsze valley school was laid before the president of the Association it was met by a counter suggestion from Hankow of a Central Board of Examiners; both schemes being submitted by Dr. Hodge to the Association for its judgment.

So far as appears these two schemes seem to have been mutually fatal, as Dr. Hodge writes complaining that he can get no votes out of members of the Association, and suggesting that votes be called for on his letter contained in the July, 1901, number of the JOURNAL (page 245 of Vol. XV).

Now it seems to the writer that these two schemes are by no means mutually antagonistic. (See Dr. Judd's letter in January No.) Why may we not have an Association medical college in the Yangtsze valley and at the same time have such a central Board of Examiners as is wished for by some? It is quite evident that the China Medical Missionary Association cannot establish all the medical schools which will be needed throughout the Chinese empire, but it might establish one first class school near the center of the empire, and might well in addition take to itself the prerogative of establishing examination tests for the issuance of medical certificates. Let us hear from the Yangtsze valley members of the Association.

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#### SELF-SUPPORT IN PEKING.

It will be good news to those who are in favor of developing self-support in our mission hospitals to learn that the medical missionaries in Peking, in reorganizing their work, have taken advanced ground in this matter. Dr. Saville kindly sends the JOURNAL the following resolu-

tions, which were adopted in Peking January 31st, at a meeting in which the London Mission, American Board, the Anglican Mission, the Methodists, and Presbyterians were all represented ; there being nine doctors and the Rev. F. L. Norris present. The action taken was as follows :—

1. This meeting reaffirms the principle of having a generally uniform scale of charges in all mission hospitals and dispensaries in Peking, and also in the case of home visits.

2. The dispensary fee shall be 200 large Peking cash for each visit, for all patients over ten years of age and 100 cash for children under that age. This fee may be remitted at the doctor's discretion in the case of very poor patients.

3. This meeting approves of the principle of meeting the needs of well-to-do patients in return for a special fee of \$1, either by the provision of a special waiting room or otherwise.

4. Patients shall, as far as possible, defray the extra expenses of operations, either by fees or by donations, unless the doctor see special reason to the contrary.

5. In-patients shall provide at least their own food and bedding.

6. This meeting reaffirms the resolution passed at the last meeting against extending to Christians, as such, privileges denied to the heathen.

7. This meeting approves the special fee, recommended by the sub-committee, in the case of patients suffering from venereal diseases through their own fault, viz, \$2 over and above the ordinary dispensary fee.

8. This meeting approves of the principle that home visits be charged for according to circumstances, with a maximum charge of \$5 within the walls of Peking.

9. Opium suicide cases shall be treated on the same terms as operations and be charged for at the same rates.

10. This meeting agrees as to the importance of encouraging donations towards the work of the hospitals and dispensaries, and to that end of encouraging visits of respectable Chinese to the various mission hospitals, etc.

11. The adoption of an annual ticket entitling to free admission after one payment of such a sum as \$1, is not to be regarded as an infraction of the second resolution above, fixing the price of admission

Dr. Saville, in writing about the discussions in connection with the adoption of these resolutions, says :—

"Some went a good deal further than this and wished the charge to be much higher, practically making the patients pay for drugs and dressings, but a good many felt that so many would be unable to do this, and the doctor's mercy would so often have to be solicited that there would be a good deal of confusion.

All through last year the Presbyterian ladies charged 500 cash first visit, 200 cash each repeat, and found no difficulty. Their attendances were, however, smaller than mine, naturally, as my dispensary was free.

I cannot speak for any one else, but personally I have not heard the slightest objection to this small charge except from the Christians ; many of these thought they would be exempted, but they are becoming disillusioned. Neither have I once had to remit the charge, and our attendances are no less than they were before the New Year, when we began the new system."

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The *Philadelphia Medical Journal*, which is one of the most kindly exchanges received by the JOURNAL, comments favorably in its issue of

February 22nd on Dr. Hodge's article in the January issue on "Phthisis in Hankow," and apropos of this has a kindly word to say of the JOURNAL in general.

In a later issue it also refers to Dr. Harris's case of Cæsarian Section, reported in the same number of the JOURNAL as illustrating the growing willingness of the Chinese to call in Western physicians and trust their lives in the hands of foreign surgeons. We would call special attention to the report in this present number of a successful cæsarian operation in the same city of Chungking which, far from being on the coast of China, as our Philadelphia contemporary seems to think, is one of the most isolated of the open ports of China, situated in West China, far up the Yangtze, and weeks of travel away from the coast.

\* \* \* \* \*

It may interest those who favor the raising of subscriptions among the Chinese for the support of medical work to know that the officials in Chi-nan-fu, capital of Shantung, have shown themselves very generous in their contributions to the hospitals of the American Mission in that city. Within less than a year over four hundred taels have been paid to the treasurer of the Mission, which money has been divided between the men's and women's hospitals in the proportion of one-third to the latter and two-thirds to the former. The subscription list was started by H. E. Yuan Shih-k'ai with a gift of Taels 100, and this was followed by Taels 60 from the governor, and Taels 40 from each of the higher officials, treasurer, judge, salt commissioner, and Taotai, and lesser sums from the prefect and magistrate.

It is hoped by those in charge that the Chi-nan-fu work may eventually be made independent of funds from abroad, being supported entirely by contributions from the Chinese and fees from patients.

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One of the most interesting exchanges which comes to the JOURNAL is the *Intercollegian*, which is the organ of the Student Department of the International Committee of the Y. M. C. A. and of the Student Volunteer Movement. It is always bright and inspiring; its April issue being particularly interesting from its accounts of the recent Volunteer Convention in Toronto. About 2,000 young men and women have come to the foreign field as volunteers, a fair proportion of these being in medical work. Of the convention the *Intercollegian* says:—

"Never before have so many students gathered from the colleges of the United States and Canada as at the Convention of the Student Volunteer

Movement at Toronto, February 26 to March 2. The unofficial report read at the farewell meeting, which did not include the large number of students of Toronto who were in constant attendance but were not accredited delegates, indicated that 2,296 students came from 465 institutions of the United States and Canada. At the convention at Cleveland four years ago the number of student delegates was 1,598. In view of the remoteness of Toronto from the center of the student field, the increase in student delegates is a striking indication of the growth of missionary interest and enthusiasm in the colleges."

\* \* \* \* \*

At a meeting of the medical missionaries in Peking, held January 31st, the following resolution was passed unanimously:—

"That the missionary doctors in Peking desire to express their sense of the loss that the medical profession in Peking has sustained in the death of Dr. Wordsworth Poole, C.M.G., of the British Legation; to put on record their appreciation of the help he so freely gave, especially in connection with the business hospitals of the Church of England and London Missions; and to convey their heartfelt sympathy to his family in their grievous bereavement."

—o—o—o—

**THE BOO-HOO FEVER.**—The annual report of the Surgeon-General of the United States Navy is an interesting volume, and not the least interesting part of it is a paper by Dr. George A. Lung. This surgeon was medical officer with the First Regiment of Marines in the Peking Relief Expedition.

The long and exhausting march over the heated plain in strange and distant China, and the unknown hazards with a cruel and relentless foe, were such as to try the health and rack the nerves of even the most buoyant of American troops. The peculiar circumstances, the extreme hardships and the unknown perils of the expedition conduced to some unusual affections, which Dr. Lung describes. Most noteworthy among them perhaps was the characteristic heat exhaustion, with subsequent derangements of the nervous system.

This heat exhaustion, in spite of the untoward circumstances, does not appear to have been of a severe type. The temperature of the atmosphere on some days was as high as 104°, and the country was ill supplied with shade or with pure water, and yet the soldiers succumbed in but few instances to genuine heat stroke. The affection rather was a heat exhaustion, from which prompt and even surprising recovery was the rule. The symptoms were extreme fatigue, mental depression, weak circulation and partial or complete unconsciousness. In some few cases there were convulsions, a hard pulse and delirium. The onset was sudden, the patient often falling in his tracks. The most remarkable feature was the rapidity with which the victims recovered with practically little treatment. With a little rest and a little assistance the sick men would be taken along; by night they would be better, and in the morning they would take their places in the ranks. Diarrhea and emaciation were common on the march.

Dr. Lung observed a peculiar emotional instability in these patients. There was a marked tendency to weep. When the patient applied for treatment and began to discuss his symptoms, his lip would tremble and tears would run down his cheeks, all the while he was conscious that he was acting rather ridiculously. The paroxysm was uncontrollable. Dr. Lung likened it to the so-called "boo-hoo" fever which is said to occur in the Hawaiian Islands.—*Philadelphia Medical Journal.*

Hospital Reports.

The following Hospital Reports for 1901 have been received since the last issue of the JOURNAL :—

LOCATION.	MISSION.	PHYSICIAN.	OUT-PATIENTS.			IN-PATIENTS.	OPERATIONS.
			New	Old.	Total.		
Changpoo	E. P. M.	Maxwell and Howe	5,838	5,683	11,521	890	968
Chungking	M. E. M.	McCartney			12,118	449	921
Fuh-ning	C. M. S.	Syngé and Mackenzie			6,255	931	69
Hiau-kan	L. M. S.	Fowler	3,109	10,534	13,643	197	701
Hanchow	C. M. S.	Main and Babington	12,968			1,023	1,628
Ich ng	C. S. M.	Stooke and Graham	1,011	1,572	2,583	160	47

**Changpoo Hospital.** From the list of operations performed in this hospital we condense the following more important ones. Those engaged in eye work will be interested to learn that of the eighteen cataract extractions sixteen were performed without iridectomy :—

Skin grafting ... ..	11
Bone operations for necrosis ...	14
Abdominal operations (appendicitis 1) ... ..	7
Obstetric operations ... ..	5
Elephantiasis of scrotum removed ...	4
Growths removed (7 malignant) ...	19
Joint operations (8) and fractures (3) ... ..	11
Eye operations (cataract extractions 18, needling 3) ... ..	92
Rectal operations ... ..	29

**Methodist Hospital, Chungking.** Dr. McCartney's report covers only eight months, from the time the hospital was reopened after the troubles of 1900—May 1st, 1901—to December 31st, 1901.

The Doctor reports encouraging progress in all departments of his work. It would seem from the number of patients treated, and the operations performed, that the people of West China are as ready as before to appreciate the benefits of foreign medicine. Those who have watched with interest Dr. McCartney's ex-

periment of opening a drug store in the interior will be glad to read the following, showing the success of the venture :—

"The drug store which was started in connection with our work about six months previous to my departure for the home land, with the object of making it a civilizing agency among the Chinese as well as a convenience to foreigners residing in the West, has met all our expectations.

The one article which we have succeeded most in introducing successfully among the Chinese is "soap," but as the amount disposed of among the 65,000,000 of people (300 cases) has been out of proportion to their number, we can as yet see no appreciable difference in their general appearance, but hope that the 300 may soon increase to 3,000.

The middle and better classes are patronizing it more and more, and during the year we have filled several hundred prescriptions given to patients who would rather pay for their medicine than to have it free.

The profits made supply the work with medicines and medical supplies. We are also selling monthly over 103 copies of the *Review of the Times* and *Methodist Advocates*.

The sales amount to from 400 to 500 taels per month."

**Fuh-ning C. M. S. Hospital.** This is the oldest established C. M. S. hospital in Fukien. Dr. Mackenzie, who writes the report, says :—

"The hospital has up to the present enjoyed a long period of gradually increasing

prosperity and popularity, disturbed by none of those hostile attacks which similar institutions have experienced elsewhere. Even during the year under review when the disastrous anti-foreign movement disturbed Northern China and led to the destruction of mission property and murder of missionaries in a district but seven days' journey overland from here, the hospital was barely threatened with violence. Our absence for three months at the beginning of the year was in compliance with the wishes of the Viceroy and British Consul."

The men's and women's departments together have sixty-six beds, and the report says the accommodations are constantly overcrowded.

"As proof that we are gaining the confidence of our patients, the number of operations performed under *chloroform* has much increased and the total number of in-patients is 973 as compared with 743 of the previous year. There is a small increase in the attendances by out-patients. Unfortunately we do not possess an operating room which can be washed out and made perfectly clean before an operation. The dispensary, thrice daily filled with decidedly septic patients, is the room at present in use."

The physicians in charge are hoping soon to secure funds, £30, for the erection of an operating room.

**Hiau-kan**  
**L. M. S. Hospital.** Dr. Fowler tells us that "Hiau-kan is a flourishing agricultural city, standing in the midst of a vast plain just a few feet above sea level. The surrounding district is wholly given up to agriculture."

Lying in the valley of the Yangtze, it was affected by the terrible flood of last year, which destroyed the rice crop over such a large extent of country. Fortunately, however, about Hiau kan itself the wheat crop had been an abundant one, so that the suffering was not so severe as in 1900, when the rice crop had also been a failure.

Under great difficulties and with totally inadequate accommodations Dr. Fowler carried on his work through 1900 and until the hot season of 1901. He says:—

"We had at this time only six beds in our little dispensary, but the cases came in

by troops, and seeing a chance of getting cured there was no driving the people out of the place. We had perforce to turn our dressing, consulting and other rooms, into hospital "wards!" The patients slept anywhere—on forms or tables, and *under* them, on the bare floor, even in the yard outside. For weeks it was unsafe to move about the dispensary at night without a light. One was pretty sure to kick some patient's legs or tread on him. It was often a matter of concern to us where another in-patient was to be stowed. We had only a small native house, but within four and a half months 197 patients had managed to come and go. Of course, the environment being what it was, ideal surgery was out of the question. Still we have few regrets. We did our best, and the way in which the cases turned out was often marvellous."

After spending some time during the summer in Kuling, on his return the Doctor put in order more commodious quarters, in which he has since been able to do his work with more comfort, though his hospital is not yet what he hopes to make it in the future. With a yearly attendance of over 13,000 and many wishing to come in as hospital patients, it is to be hoped that Dr. Fowler may soon have ample accommodations for his work.

A leper home is also carried on in connection with the hospital in Kiau-kan.

**Hangchow Medical Mission, C. M. S.** Dr. Main's report is for the twentieth

year of the medical mission work in Hangchow. Twenty years have passed since the C. M. S. hospital began its large and beneficial work of relieving the medical needs of that populous center, years of continued activity and great success, interrupted for only a few months during 1900 by the unsettled state of the country. A convalescent home and leper asylum are among the adjuncts of the hospital proper; both being situated in the country outside the city walls.

As the statistics given above are rather meagre, we insert below the detailed list of patients:—

* Out-patients (registered only on first visit)			
Male	8,858		
Do. do. Female	4,110		
		—	12,968
In-patients ...	Male	790	
„ ...	Female	233	
		—	1,023
Patients visited in their homes...			172
Visits paid to foreigners and natives at their homes...			583
Accouchements ...			16
Suicides ...			223
Operations—Major, under chloroform ...			136
Operations—Minor ...			1,492
Lepers ...			54
Opium smokers ...			96

\* Each patient pays, on an average, three visits.

Speaking of his return from his second furlough in December, 1901, Dr. Main says:—

“We found the hospital closed for the first time since it was built, and I hope the last time for many years to come. Dispensary work, however, was being carried on with success and vigour by the assistants Liu and Tsang. After a good look round and many hours spent daily with the officials and gentry who came in great numbers to welcome us back and to assure us of their real regret for the troubles of last year, we began to make arrangements to have the hospitals overhauled and put in thorough repair before spring, when, as in former years, we expected a tremendous rush of patients. We found that a great deal had to be done to bring the buildings up to their old standard of perfection. Many things had been allowed to slide because of the unsettled state of the country. After due consultation with my colleagues on the spot we set about carrying out important alterations and improvements in both the women's and men's hospitals. The small rooms on the north side of the main hospital we took down and replaced by rooms for students and nurses and a large and commodious stock room. We added six new rooms to the women's hospital. We also carried out several important alterations at the kitchen and offices and improved the sanitary condition by making a drain from the hospital to the nearest canal, a distance of some hundred yards. We renovated, replenished, and brought our operating room up to date. We also built a new opium refuge, which was very much needed.”

Of the convalescent home he says:—

“Our convalescent home, which is beautiful for situation, overlooking the lovely West Lake, did good service during the year, and ninety-three patients gained strength and vigour in pure air and delight-

ful surroundings. As we write this, two consumptive patients are undergoing open-air treatment with most satisfactory results.”

**Rankine Memorial Hospital, Ichang.** Drs. Stooke and Graham, in issuing the first annual report of this new hospital, say:—

“The Rankine Memorial Hospital was opened at the end of May, 1901. Medical work had been carried on in Ichang for some twenty-one years previously, and some hospital work had been attempted in the native city, but in very inadequate premises, by Drs. Pirie and Rankine, our predecessors. The last named set on foot the present building, but did not see its completion. He died while the hospital was being erected.

“The hospital is built on the left bank of the river and faces a hill called the ‘Pyramid,’ from its great similarity in size and appearance to the great pyramid of Egypt. From the outside the hospital appears as a plain square building, with a verandah running along the second story. A high wall separates the building from the main street, and just inside this wall is the gate-keeper's house, whose business it is to admit patients and keep out thieves and other vagabonds. The hospital is built not in wings but in flats. There are two flats and a very large attic used solely for opium smokers who come in to be broken of the awful habit. The top flat has a large, airy ward, occupying half of the entire extent, and intended to accommodate twenty-two men patients (Chinese). The other half of the top flat is divided into two; one part being a ward for second class foreign patients and the other our operating room. Some fifty sailors have been occupants of the ward during the year, though it is by no means intended solely for the use of sailors, but any foreigner requiring hospital treatment is received. The lower flat is much more divided up. On the left side on entering the hospital is a private room for a first class foreign patient, next comes the female ward, and at the back is a small bedroom for the Chinese assistants on duty. On the right side is the dispensary, then the out-patient rooms, comprising a medical consulting room, a room for the dressing of surgical cases, and a small dark room for the examination of eye cases. At the back is a large room—the chapel—where the evangelist preaches to the patients waiting to be seen. Our evangelist is a splendid and earnest fellow and much concerned for the souls of the patients entrusted to his charge.



"The hospital is bright and cheery inside; there are plenty of windows for light and air and the walls are hung with Chinese scroll texts in red and gold."

In telling of the discouragements of the opening of this new hospital the Drs. say:—

"In our first month after opening the hospital we had a run of most serious cases, many of which terminated fatally. In fact in the last five months we have not had so many deaths as occurred in our first month. And these serious cases were forced upon us, we could not refuse them.

"Thus we made, humanly speaking, a very bad start, but God's good hand has been upon us, and our hospital has not gained an evil reputation among the people, but rather the reverse. Things looked some-

what dark in the middle of July, and we tried to find out from our assistants the cause. They said the common talk on the street was that the foreign hospital was the place to attend for malaria and for all "outside ailments," i.e., surgery; but for "inside ailments" the Chinese doctor was far more efficient. This was humiliating, especially when one understands the awful empiricism of the ordinary Chinese practitioner. Here is one of the methods of NATIVE PRESCRIBING. A series of colours are arbitrarily selected to stand for the "five viscera" which Chinese medical books recognise. Thus red is chosen to represent the heart, white the lungs, black the liver, etc. Then they will prescribe a red medicine for all heart or blood diseases, whilst a white medicine will be devoted to pulmonary complaints."

### TREATMENT OF GONORRHEA.

The general practitioner who treats of gonorrhea by properly regulating the diet, by resting the body in general and the sexual organs in particular, by administering diluents, and later balsams by the mouth (but never in quantities sufficient to disturb the stomach), by administering mild antiseptics, and by using frequently repeated antiseptic injections, is acting in accord with the practice of some, if not all, of the leading specialists in this country. It will be noted that, of the many silver solutions recently put upon the market and vaunted by the manufacturers as specifics in the cure of gonorrhea, protargol is given the preference.

As to the possibility of aborting gonorrhea, there is an honest difference of opinion. There is, however, sufficient authority for avoiding the treatment to make practitioners that do not attempt it feel satisfied they are not falling behind the time.

The irrigation treatment, beginning with a hot solution of *potassium permanganate* 1:6000 and flushing the entire urethra when the inflammation is total—and this is the rule—twice daily is promptly followed by an almost total cessation of discharge and of all distressing symptoms, nor are painful complications likely to occur. There seems good reason for believing the protargol 1:500, or even in stronger solution, is non-irritant and aids in the elimination of the gonococci; hence this may be employed as a hand injection in conjunction with the permanganate flushing. A persistent mucopurulent discharge requires astringent injections not materially differing from those in vogue twenty years ago, supplemented exceptionally by instrumentation and direct applications.—*Therapeutic Gazette*.

## Evangelistic.

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### THE OUT-PATIENT.

Welcome her kindly and tenderly,  
 Speak to her softly and low;  
 Though her eye looks bright and her spirit  
     seems light,  
 Her heart may be breaking below.

Perhaps she is weary, perhaps she is faint,  
 Or thinly and scantily clad;  
 Perhaps it is fear of what may be near  
 Makes her so mournful and sad.

Or perhaps some trial that's sorer still  
 Is pressing upon her heart—  
 Some loved one may lie sick and ready to  
     die,  
 And that makes the tear drops start.

Then bear with her tale of trouble,  
 Though her speech is broken and slow;  
 Let her sob, let her weep; her grief is so  
     deep  
 That her tears they must overflow.

Give heed to all that she has to say  
 With patient thought and care—  
 She knows not what to do! She depends  
     upon you  
 As she stands in her loneliness there.

She has had to leave her wonted work,  
 She is so anxious and ill;  
 Trembling and weak she comes to seek  
 The help of your knowledge and skill.

Then deal with her gently and lovingly,  
 Counsel her wisely and well.  
 The good that you do may be known but to  
     few,  
 But the comfort to *her*—who can tell?

And grudge not time, or toil, or thought;  
 The reward you shall surely see;  
 For what ye have done to the suffering one,  
 "You have done it," He saith "unto Me!"

WILLIAM FAIRLIE CLARK, M.D., 1869.

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### "IN HIS FAVOUR IS LIFE."

By DR. GEO. KING.

Life is brief! The years fly swifter  
 Than they ever fled before;  
 Scarcely passed one happy birthday,  
 Ere the next is at the door.

Moment chases joyous moment,  
 Full of life and full of glee;  
 As we render God glad service,  
 Seeing Him in all we see.

Life is measured, not by moments,  
 But by what the moments fill;  
 Fill them full to overflowing  
 With the joy to do God's will.

Fill them full with earnest effort;  
 Fill with truth all else above;  
 Fill with holy rapt communion,  
 Fill with God, and heaven, and love.

---

"Notwithstanding the discouraging start made with our medical work we have been greatly encouraged with the evangelistic. The evangelist arrives at ten in the morning and addresses the assembled out-patients. He comes again in the afternoon to the wards and talks at the bedside with individual patients, or teaches a class of them a simple Christian catechism, Scripture texts, or the Lord's Prayer. In the evenings we have a regular ward service which we and the hospital assistants take in turn. Mr. Deans is our acting hospital chaplain, and kindly comes every Wednesday evening and leads our ward service, and our best thanks are due to him for this kind help. This work seems to us to be most hopeful; the patients listen eagerly to the addresses and often ask very intelligent questions on the subject of the evening's discourse. Only once has there been anything approaching rowdiness, and as this was sharply dealt with it has never been repeated. Already the firstfruits of the hospital work have been gathered into the church, and we give glory to God for this. One old man, an occupant of one of the endowed beds, is a happy and hearty believer. His was a case of chronic ulcer of the foot, from which he had suffered four years.

He is too simple and uneducated to pass anything like an examination in even the elements of theology, but he understands and has accepted the way of salvation, and is a changed man in face and heart. We hope he may soon enter the church. Another believer is an old Buddhist priest. He truly believes the doctrine, but dare not throw up his office in his temple for want of employment. This is a great difficulty in China. Priests know no handicraft, and when they join a church it is not always possible to give them teaching or literary work to do.”  
—*Ichang Hospital Report.*

“The spiritual results of a work like ours we do not try to estimate. There seems to have grown up a habit of measuring all mission work by certain arithmetical standards, and, judged by these, work is a success or a failure. It is a very false mode, however, if it is to be vigorously applied. Much work done for God is of such a nature that it necessarily evades mechanical tests, and it is not the less acceptable to Him on that account. One should not be discouraged because in spite of faithful effort there is little *visible* fruit. There has been abundant seed-sowing in the various branches of our work,

and we have faith that it will bring forth abundant fruit. It has been our joy to see a few publicly profess their faith in Christ. We rejoice in every effort that is being made to lessen suffering, misery, and sin in China through the healing of the sick and the preaching of the gospel. It would be difficult to estimate the immense amount of suffering relieved and the number of lives saved. The record of thousands of cases treated may give some idea of the good done, but cannot adequately describe the blessing the medical mission brings to Hangchow and the surrounding country.”  
—*Dr. Main's Hospital Report.*

“For some reason or other the number of patients who have been with us during these months have been more open to the reception of the truth than ever before. At least 100 of the number have signified a desire to become Christians, and time only will tell how faithful they will prove. Several have been taken on probation in our own church and letters given to several more returning to stations of other missions.

We hope during the next year to have a man give his entire time to evangelistic work in the hospital.”  
—*Dr. McCartney's Hospital Report.*

## Correspondence.

**Medical Work in  
Tsao-shih.**

Dr. Wills writes from Tsao-shih (via Hankow) as follows, under date of February 2nd. Would that more of the members of the Association would send the JOURNAL such "elementary remarks" on their medical work :—

"Just a short note to let you know that we are going on very pleasantly here. A harmless riot seems a very good way of ridding the air of bad feeling, as now we are quite friendly all round. The hospital is kept very busy, and no bad stories are being circulated.

A few cases recently I might briefly mention.

(1). An ulcer of leg, very slow in healing, suddenly healed after an attack of malaria, so since then I have dosed ulcer of by patients with *mag. sulph.* half drachm on alternate days; under this treatment they heal much quicker; it seems to get rid of the overloaded state they get into by the *high living and low thinking of hospital life.* [Italics mine.—Ed.]

(2). Prolapsed rectum in a child of five years lasted over one year, replaced the gut and lashed him on to a long splint, from the neck to the heels, gave him *castor oil* and *santonin*, and he had to pass the motion on to a pad of wool between the splint and the buttock. After four days he went home seemingly well.

(3). A big hydrocele, fifteen years, tapped twice—so I chloroformed him and opened; inside was a lot of white putty stuff; the lining I stitched to the skin; the opening was about three inches long; unfortunately I scrubbed rather too severely, and the scrotum skin got inflamed; that's gone down, and he is doing well.

(4). Fistula in ano; there have been over thirty this month; last year I

rubbed *zinc chloride* after scraping, and much pain resulted; now I am using pure *carbolic*, and it is painless after the anesthetic is over; also the healing is quicker.

These are all elementary remarks, so please pardon my writing them; there is nothing brilliant to write about."

**Comity in Medical  
Literary Work.**

Dr. Cousland, secretary of the Association's Committee on Medical Nomenclature, makes the following pertinent remarks in regard to the desirability of interdenominational union in literary and editorial work :—

"We Presbyterians have set a good example in interdenominational union as a result of the meeting in Shanghai last autumn. Could the Medical Missionary Association not do something along the same lines as regards literary work? *Could we not ask one of the home churches or Boards to set a man free for a year or two to translate text books and start medical journal in Chinese; also edit dictionary of terms, etc.?* His Shanghai expenses could be met as Woodbridge's are by certain sums from each Board, or perhaps each hospital and dispensary. If we could only have a meeting of the Association we could put a lot of things through; without it all general schemes hang fire. If only a man could be set apart, or say two or more men at their stations arranged to give part of their time, it would expedite matters five years or more."

**Small-pox in  
Chinkiang.**

Dr. Cox writes from Chinkiang under date of May 14th :—

"I have been wanting to send some account of the epidemic of small-pox

in this neighbourhood during the last three months. But it is difficult to collect statistics. Some cases have come to our notice in the out-patient department. But having no place to attend to them we could not take them in. When the epidemic first made its appearance, it was in a virulent form, and those attacked died in a day or two after the fever and sorethroat. It was very fatal among children. But now the cases are much fewer, and we don't hear of any deaths from it. There were a good many cases of diphtheria among the children about two months ago. Dr. Taft treated some with the serum and intubation successfully, though they generally came at a late hour."

Dr. Woodhull, under date of March 3rd, writes as follows:—

"Miss Brown and I have just returned from a six weeks trip to Shao-wu. The scenery is beautiful and grand beyond description, the rock formation most wonderful.

Shao-wu is a very favorable place for work. Since the riot that looted our buildings there, the people are very friendly and anxious to hear the gospel.

Dr. Bliss is rebuilding his hospital.

Land is cheap, thanks to the terrible Taiping rebellion. They have bought a large tract of about eight and a half acres within the city walls for the woman's work, and Dr. Bement is building her dispensary. When it is finished, it will be the finest dispensary the American Board has in China.

Boys and girls are impatiently wanting to enter the new schools now building.

Our large church there is filled to overflowing. The ladies are going to build another chapel on their land."

Dr. Harris, writing from Chung-king, February 17th, asks as follows for a correction to be made in her article in the January number:—

"May I be allowed to correct a slight printer's error in my article on a case of caesarian section published in this quarter's JOURNAL? Though slight it conveys a wrong impression. About the middle of page 19 the article reads: 'The lower segment of the uterus was very greatly thinned, and unfortunately torn,' etc. This last word should be *tore*. There was no tear before the time of operation, as the word torn implies; it was made by the operator owing to the very thin condition of the tissues of the uterus. I must apologize for troubling you with this correction, but I have already had a note from a medical friend which shows me that a wrong impression has been conveyed by the misprint."

Dr. King sends the following note from Chefoo:—

"I had an interesting *post-mortem* on a case Dr. Gulowsen kindly gave over to me—a young English engineer—who had drunk freely and had syphilis; the *post-mortem* revealed a large abdominal aneurism which had burst behind (the blood finding its way between the peritoneal and muscular abdominal coats around to the front, where it formed an immense clot) and caused sudden death."

## BIRTH.

April 27th, at Canotn, the wife of JOHN M. SWAN, M.D., A. P. M., of a son.

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## DEATH.

May 8th, at Chiang-chiu, near Amoy, MARY A. CHALMERS, wife of A. Fahmy, M.D., L. M. S., from cholera.

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## ARRIVALS.

March 13th, Dr. C. S. LEWIS, A. P. M., Hunan.

„ 22nd, A. HAYES, M.D., S. B. C., Wuchow.

April 19th, Mrs. GOTTENBERG, M.D., and JÄRGEN EDVIN WILSON, M.D., both of N. L. M., Lao-ho-kow; Miss AITKEN, M.D., U. F. C. S. M., Liao-yang.

May 24th, Dr. R. S. SMYTH, C. M. S., Ningpo (returning).

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## DEPARTURES.

Feb. 19th, Dr. M. SANDEMAN, Amoy, and Dr. J. M. DALZIEL, both of E. P. Mission, for England; Dr. VAN S. TAYLOR, C. M. S., Hing-hwa, for England.

April 5th, Dr. ELIZA E. LEONARD, A. P. M., Peking, for U. S. A.

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